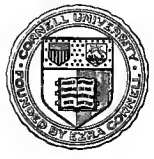
CORNELL
UNIVERSITY
LIBRARY



FINE ARTS LIBRARY

Cornell University Library
NA 7552.T27
Houses for workers.
3 1924 015 178 613
fine

The original of this book is in
the Cornell University Library.

There are no known copyright restrictions in
the United States on the use of the text.

http://www.archive.org/details/cu31924015178613

HOUSES FOR WORKERS.

PUBLISHED BY

TECHNICAL JOURNALS, LTD.

27-29, Tothill Street, Westminster.

HOUSES FOR WORKERS.

AN insistent need of to-day is the provision of suitable new houses for working-class families, both in rural and urban districts. There is a general dissatisfaction with the dispiriting rows of ill-designed houses that have been erected in town areas, and the badly-assorted cottages in village communities. We need houses of a better type, with better accommodation and better equipment—houses, moreover, forming part of some definite ordered scheme, instead of being a miscellaneous collection that will surely constitute the slum of to-morrow.

It is the object of this volume to present a series of selected examples, in the hope that these will help the movement towards better housing in town and country. The houses have been grouped into three sections, containing the following :—

(1) A general selection of cottages for rural and urban workers.

(2) A colony of houses erected specially for munition workers, but representative of a class of dwelling that is suitable for artisans in a town area.

(3) An estate of houses at Kennington, London, S.E., carried out in conformity with a co-ordinated scheme of rebuilding, this scheme incorporating shop premises, a church, and other communal buildings.

SECTION I.

COTTAGES FOR RURAL AND URBAN WORKERS.

With regard to this section, we may note that in recent years the continued depopulation of country districts and the migration into towns has created a problem which is very difficult to solve. There can be no doubt that in the country districts the dearth of cottages has been a large contributory factor to the serious exodus that has occurred, and the " back to the land " cry will never gain any ready response until the labourers can be sure of being decently housed at a moderate rental. From the landowner's point of view, of course, the principal difficulty consists in erecting cottages at such an outlay as will allow the rent to be fixed at a sum within the means of those who will occupy the cottages. What the ultimate end of the present difficulty will be, it is impossible to say with any degree of confidence ; but the portents all indicate something in the nature of a State subsidy.

In presenting this series we have not sought to show only those cottages which have been carried out at a phenomenally cheap rate, as we realise that more often than not in such cases the low cost has been rendered possible only by cutting down the accommodation below the desirable minimum, by using materials of inferior quality and bald appearance, and by executing the building work in the most slipshod manner. Economy in cost is undeniably one of the cardinal necessities if houses are to be let at a rent which workmen and labourers can afford to pay ; but

it must always be remembered that upkeep and permanence are factors of no less importance. This is especially the case with houses built by local authorities, who have to arrange loans for the purpose. It will be found, we think, that in the examples now illustrated the problem has been studied from this dual point of view. The houses may be regarded as sound examples of building, finished in the best way that the available funds permitted, and designed also with an eye to their architectural appearance. They comprise a large number of types, from the detached labourer's cottage to pairs and groups of cottages, and among them will be found also some flats.

The costs given are pre-war costs, and consequently, of course, much below what they would be under present conditions; but they serve as a general indication of what can be provided for a stipulated expenditure. On this subject of cost we have thought it to be of value to include a detailed description of an experiment in cottage building made at York by Messrs. Rowntree. The particulars are given on page 12. They are of peculiar interest as showing how cottages were built for less than £100 each.

We have thought it to be of value also to include some information on the subject of cottages for small holders. The particulars, taken from the report of the Departmental Committee which investigated the subject, will be found on page 7.

SECTION II.

A COLONY OF HOUSES FOR MUNITION WORKERS.

This section illustrates the very excellent colony of houses at Well Hall, carried out by the Government for the accommodation of some of the workers at Woolwich Arsenal. The scheme is fully described in the prefatory article on page 59, but here it may be pointed out that its great feature is the provision of houses in blocks of four and more; an economy in cost being thus effected, while all appearance of monotony is avoided by the judicious placing of the blocks in relation to one another.

SECTION III.

AN URBAN HOUSING SCHEME.

The houses shown in this section are on the Kennington estate of the Duchy of Cornwall (Professor S. D. Adshead and Mr. Stanley C. Ramsey, architects). In point of style they are admirable as a modern rendering of the small house of the Late Georgian period, but while conforming to one general character, they are very diversified in treatment, and thereby possess a fresh interest in each case. Especially they are of value as being part of an urban rebuilding scheme on town-planning lines. Full particulars of the scheme are given in the article that prefaces the section.

CONTENTS.

	PAGE
Houses for Small Holders	7
Pair of Small Holders' Houses	10
Cheap Concrete Cottages for Agricultural Labourers	12

SECTION I.

COTTAGES FOR RURAL AND URBAN WORKERS.

Cottage at Dibden, Southampton (A. H. Clough, Architect)	17
Pair of Cottages at Sheepwash, Newtown. (Francis Bacon, Architect)	18
Pair of Cottages at Dibden, Southampton (A. H. Clough, Architect)	19
Pair of Cottages at Woking (E. C. P. Monson, F.R.I.B.A., F.S.I., Architect)	20
Three Cottages at Bocking, Essex (Miss M. E. Tabor, Architect)	21
Six Cottages at Church Street, Bocking, Essex (Miss M. E. Tabor, Architect)	22
Four Cottages at Marsh Green, Hartfield, Sussex (A. H. Clough, Architect)	23
Four Cottages in Garden Estate, near York (Barry Parker and Raymond Unwin, Architects)	24
Pair of Cottages at Burton, Cheshire (H. S. Goodhart-Rendel, Architect)	25
Pair of Cottages at Burton Manor, Cheshire (H. S. Goodhart-Rendel, Architect)	26
Pair of Cottages, Bucton Court Estate, near Leominster (Clough Williams-Ellis, Architect)	27
Block of Five Cottages, Bury Road, Thetford (Stanley J. Wearing, A.R.I.B.A., Architect)	28
Block of Four Cottages, The Garden Village, Hull (Runton & Barry, AA.R.I.B.A., Architects)	29
Block of Four Flats, Yeovil, Somerset (J. Petter & P. F. Warren, A.R.I.B.A., Architects)	30
Pair of Cottages at Yeovil, Somerset (J. Petter & P. F. Warren, A.R.I.B.A., Architects)	31
Row of Six Cottages, Borough of Yeovil (J. Petter & P. F. Warren, Architects)	32
Five Cottages at a Sea-side Village, Co. Antrim (Clough Williams-Ellis, Architect)	33
Workmen's Dewllings, Cline Road, Guildford (T. J. Capp, Architect)	34
Block of Six Cottages, Common View, Letchworth (H. L. Paterson, Architect)	35
Pair of Cottages at Hull (Chapman & Jenkinson, Architects)	36
Four Cottages at Markfield, Leicestershire (E. C. P. Monson, F.R.I.B.A., F.S.I., Architect)	37
Block of Three Cottages, Bury Road, Thetford (Stanley J. Wearing, A.R.I.B.A., Architect)	38
Pair of Cottages at Highclere, Berks (Francis Bacon, Architect)	39
Block of Four Cottages, Fforestfach Garden Village (G. L. Pepler, F.S.I., & E. G. Allen, F.R.I.B.A., Architects)	40
Concrete Cottages, Merthyr Tydfil (F. Thackeray, Borough Architect)	41
Cottage at Merrow Common, near Guildford (built for J. St. Loe Strachey, Esq.)	41
Cottages at Woodstock, Oxon. (Frank Mountain, M.S.A., Architect)	42
Block of Four Cottages, Primrose Avenue, Wincobank, Sheffield (H. L. Paterson, A.R.I.B.A., Architect)	43
Pair of Cottages at Oving, near Aylesbury, Bucks (Barry Parker and Raymond Unwin, F.R.I.B.A., Architects)	44
Pair of Cottages at Oving, near Aylesbury (Barry Parker and Raymond Unwin, Architects)	45
Seven Cottages off Prospect Road, Cadishead (G. Herbert Kay, A.M.I.C.E., Architect)	46
Block of Four Flats and Four Cottages, Wincobank Avenue, Sheffield (H. L. Paterson, A.R.I.B.A., Architect)	47
Group of Fourteen Small Flats, Byfleet, Surrey (Barry Parker and Raymond Unwin, F.R.I.B.A., Architects)	48
Cottage at Merrow Common, Surrey (Conrad B. Willcocks, Architect)	49
Pair of Cottages at East Clandon, Surrey (H. S. Goodhart-Rendel, Architect)	50
Pair of Cottages at East Clandon, Surrey (H. S. Goodhart-Rendel, Architect)	51
Cottages at Whitlingham Farm, Norwich (Arthur E. Collins, M.Inst. C.E., City Engineer)	52, 53
Farm Houses at Postbridge, Devon (Richardson & Gill, FF.R.I.B.A., Architects)	54, 55

SECTION II.

GOVERNMENT HOUSING SCHEME AT WELL HALL, ELTHAM, KENT.

Hutments for Munition Workers (Building Department, Woolwich Arsenal) .. 56, 57, 58

Plate I.—Crescent of Houses, Well Hall Road (Class I.).
" II.—Houses in Crescent, Well Hall Road (Class I.—excepting middle House, Class II.).
" III.—Houses at Ends of Crescent, Well Hall Road (Class I.).
" IV.—Ross Way.
" V.—Block of Four Houses, Downman Road (Classes I. and II.).
Wing of Block of Seven Houses, Well Hall Road (Classes I. and II.).
" VI.—Block of Four Houses, Downman Road (Classes I. and II.).
" VII.—Block of Seven Houses, Well Hall Road (Classes I. and II.).
" VIII.—Block of Four Houses, Phineas Pett Road (Classes II. and III.).
Block of Houses, the Cinder Path, Well Hall Road (Classes I. and II.).
" IX.—Block of Four Houses, Phineas Pett Road.
" X.—Sandby Green.
" XI.—Block of Five Houses, Sandby Green (East Side—Class III.).
" XII.—Lovelace Green.
" XIII.—Pair of Cottages, Lovelace Green (Class III.).
" XIV.—Dickson Road.
" XV.—Houses Facing Well Hall Road.
" XVI.—Flats, Granby Road (Class IV.).

SECTION III.

HOUSING ON THE KENNINGTON ESTATE OF THE DUCHY OF CORNWALL, FOR HIS ROYAL HIGHNESS THE PRINCE OF WALES, DUKE OF CORNWALL.

Plate I.—Old Tenants' Hostel, Newburn Street: Entrance.
" II.—Old Tenants' Hostel: View of Quadrangle.
" III.—Old Tenants' Hostel: Ground-floor Plan and Elevation to Newburn Street.
" IV.—Old Tenants' Hostel: Fountain in Quadrangle.
Two Houses in Courtenay Street.
" V.—Two Shops in Newburn Street.
" VI.—Courtenay Square.
" VII.—Cottages in Courtenay Square: Detail of Elevation and Plans of Ground and First Floors.
" VIII—Cottages, Courtenay Street.
Two-Storey Flats, Newburn Street.
" IX.—Estate Office, Kennington Gate.
" X.—Flats in Upper Kennington Lane at Entrance to Courtenay Street.
" XI.—Flats in Upper Kennington Lane at Entrance to Courtenay Street: Block on Right-hand side.
" XII.—Shops in Upper Kennington Lane.
" XIII.—Block of Eighteen Flats on North Side of Chester Street.
" XIV.—Block of Twelve Flats and Cottage on South Side of Chester Street.
" XV.—Flats in Chester Street: Detail of Elevation and Plans.
" XVI.—Two-storey Flats, Cardigan Street.
" XVII.—Crêche in Princes' Road.
" XVIII.—St. Anselm's Vicarage.

HOUSES FOR SMALL HOLDERS.

THE following is a summary of the chief conclusions arrived at by the Departmental Committee which has investigated the subject of houses for small holdings :—

Minimum Requirements.

The Committee, while recognising it as their duty to make practical suggestions for reducing the cost of building, wish to make it clear that they would deprecate any attempt to cheapen the construction at the cost of the ordinary requirements of health, decency, and convenience. They have therefore considered it helpful to fix the following minimum standard of accommodation for a small holder's house, below which it would be undesirable in any circumstances to fall :—

	Minimum Area. sq. ft.	Approximate Dimensions. ft. in. × ft. in.
Living-room or kitchen	180	15 0 × 12 0
Scullery	80	10 0 × 8 0
Larder or pantry	24	6 0 × 4 0
Fuel store	35	7 0 × 5 0
Bedroom No. 1	150	12 6 × 12 0
Bedroom No. 2	100	11 0 × 9 0
Bedroom No. 3	65	9 0 × 7 3

Approximate cubic space in bedrooms, if averaging 8 ft. high all over, 2,520 cubic ft.
In addition, if the circumstances demanded it, a parlour might be provided, about 12 ft. by 10 ft.

Where a parlour is provided on the ground floor, and there is therefore greater area on the first floor, the minimum sizes of bedrooms should be as follows, instead of those given above :—

	Minimum Area. sq. ft.	Approximate Dimensions. ft. in. × ft.
Bedroom No. 1	160	13 4 × 12
Bedroom No. 2	120	12 0 × 10
Bedroom No. 3	110	11 0 × 10

Approximate cubic space in bedrooms, if averaging 8 ft. high all over, 3,120 cubic ft.

The Living-Room.

The practical convenience of a living-room depends not only upon its size, but also upon its plan and arrangement. The best shape is probably one not quite square—about 15 ft. by 12 ft. If the fireplace is on one of the short walls, the windows should be on the adjacent long wall, and the door or doors should be placed as near as possible to the corner farthest from the fire and window. If the fireplace is on one of the long walls the room should be made somewhat wider to allow for the projection of the chimney breasts. The window should then be on one of the short walls, and the door may be at the opposite end of the long wall which carries the fireplace, provided it is not less than about the length stated above. The fire should never be placed immediately opposite the only window, otherwise the housewife will stand in her own light when cooking. The portions of the room about the fire and adjacent to the window should not have to be used as passage ways from one door to another, and special care should be taken to avoid planning doors between the fire and the window, on account of the inconvenience resulting from such an arrangement. (See illustration page 9, C.)

As a rule, one large window is preferable to two small ones, and where there are two, the second should be made quite a minor one.

The living-room should be provided with a cooking range or kitchener, and also with sufficient cupboards and shelves.

The best aspect for the living-room is south or south-east, so that the morning sun may enter.

A convenient type of dresser is shown by (D).

Bedrooms.

In the bedrooms the desirable standard to keep in view is a minimum of 500 cubic feet per adult and 250 cubic feet per child ; in no case should a bedroom contain less than 500 cubic feet.

In the largest bedroom provision is required not only for the double-bed, but very frequently for one or even two cots as well ; the floor area of this room, therefore, should never be less than 150 square feet, and 160 or 180 feet is a more desirable size.

The principal bedroom having been planned, some liberty in apportioning the remaining space to the other bedrooms must be allowed, because the exigencies of planning may make it in one case much easier to provide two bedrooms of unequal size, and in another case two of about equal size. Where possible, the second bedroom should preferably be large enough to accommodate two adults, though perhaps it will more often be occupied by two children, or by one adult and one younger person. In the house having a parlour it is often possible to provide, at little extra cost, a quite small fourth room, which will be very useful as a boxroom, or will serve as a bedroom for an occasional visitor.

The important consideration in planning a bedroom is to allow sufficient space for the bed or beds out of the draught from the window, so that there may be no special reason to keep the window closed.

The objection that exists, in the case of the ground-floor rooms, to the door being placed in one of the corners adjacent to the fire is of much less force in the case of a bedroom ; indeed, it will often be found that this is a convenient arrangement. Simple wardrobe cupboards are a great boon, and if they consist only of a wooden shelf in a recess with a frame for curtains and pegs for hanging, they will serve to protect clothes from dust, and help the occupants to keep the rooms tidy.

The Dairy.

In addition to the minimum accommodation mentioned above, it will generally be necessary, in a small holder's house, to provide a dairy, except in the case of a holding cultivated entirely as a market garden where no cow is kept. The dairy must be separate from the larder : it should not open directly out of the living-room or scullery, and is best entered from outside the house by means of a small covered way, or lobby, adjacent to the scullery door. The aspect should always be either north or north-east ; the window should not be of excessive size, and may sometimes with advantage be recessed in the wall or otherwise protected from the slanting rays of the sun. The window may even be shaded by a projecting roof, but it should not open on to such yard space as is likely to be wanting in proper circulation of air.

The dairy must be thoroughly ventilated and, like the larder, should be well lighted by a window, which may be a fixed light if sufficient ventilation is secured by other means. All means of ventilation should be covered with fly-proof copper wire gauze.

The minimum size for a dairy in connection with a small holding should be 40 sq. ft.

General Construction : Walling.

Economy should be sought in careful planning and simplicity of construction, not in the undue cutting down of the quality of the materials, fittings, or workmanship. Cavity walls are recommended as the most effective and economical means of securing a dry interior. Failing this, the outside of the house should be protected with a good thick coating of cement rough-cast. It is important that good mortar should be used. Inferior mortar is the cause of much trouble with rough-cast. Recent investigations go to show that the commonly adopted proportion of 3 to 1 for mortar does not give good results, particularly when the lime is measured after slaking. With the average materials a proportion of 2 to 1 would prove more satisfactory.

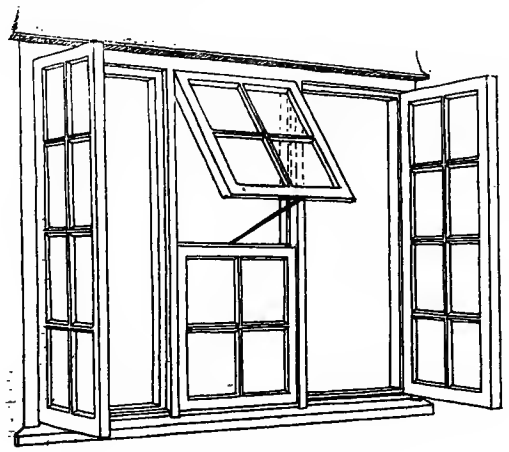
It is very common to see the damp course placed too low. It should never be less than 6 in. above the highest finished level of the ground.

Protection Against Weather.

The protection of walls by means of overhanging eaves offers great advantages. In the case of window openings, weak spots are particularly likely to occur at the joints between the brick wall and the wooden frames. Properly constructed string-courses and drip-courses across the base of a gable or over the heads of windows and doors afford considerable protection by throwing off the water and reducing the volume running down the surface of the wall or window. Proper weathering and throating, however, are essential. (See illustration on opposite page, E.) Where stone sills are considered too costly, an oak undersill with good projection is recommended in preference to brick on edge. A good drip under the sill may be made by using two courses

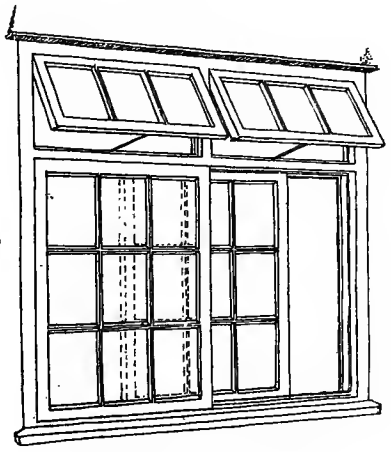
A. CASEMENT. B. YORKSHIRE SLIDE
C. POSITIONS OF DOORS AND WINDOWS
D LIVING ROOM DRESSER.
E. DRIP COURSES
F. ADJUSTABLE BEARER G PROTECTED GUTTER
H. PANTILES LAID ON NORFOLK LATHING SYSTEM

A

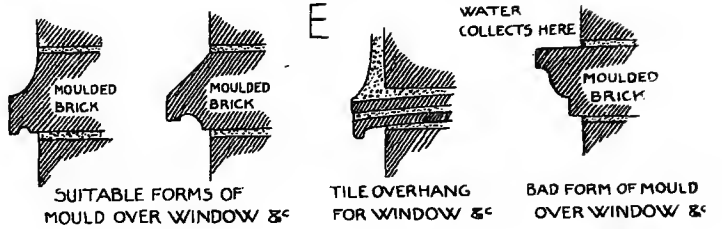


SIDE AND TOP-HUNG WINDOW

B



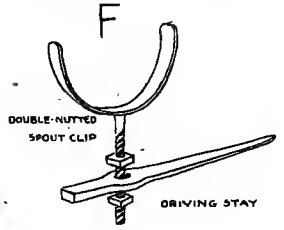
YORKSHIRE SLIDE WINDOW

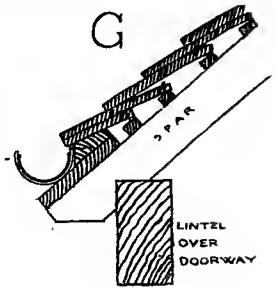


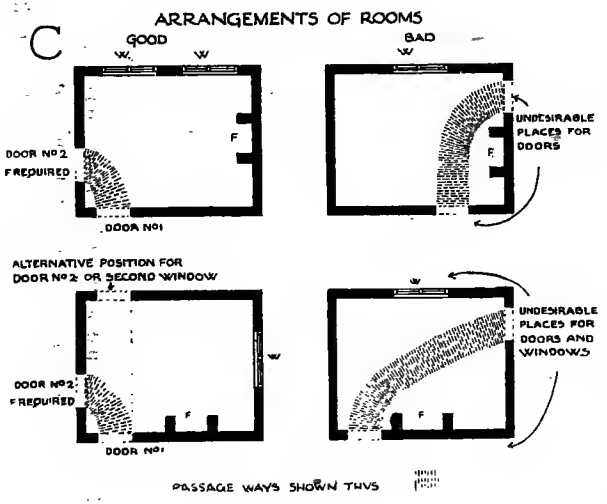
SUITABLE FORMS OF MOULD OVER WINDOW &c

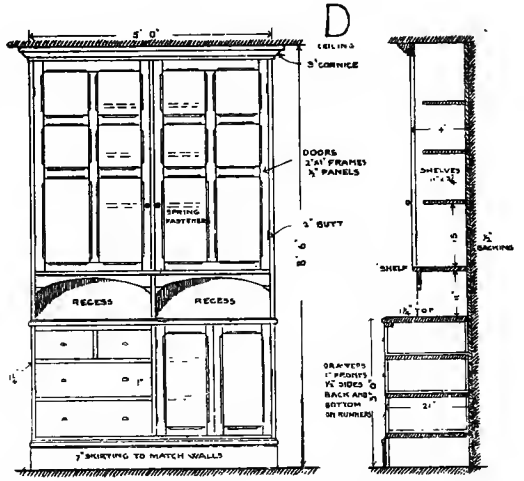
TILE OVERHANG FOR WINDOW &c

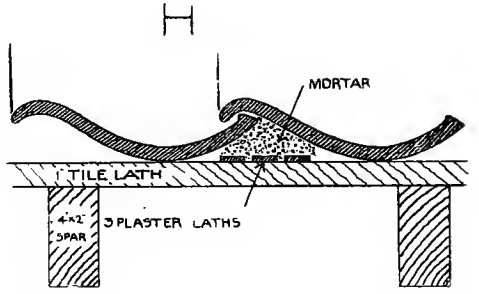
BAD FORM OF MOULD OVER WINDOW &c











DETAILS OF SMALL HOLDERS' HOUSES.

of paving quarries laid to break joint at a sufficient slope, and projecting an inch or two beyond the face of the wall.

Roof-coverings.

The best roof-coverings to adopt depends upon the district, but tiles are preferable to slates. Over a large part of England one of the cheapest roof-coverings is provided by the old-fashioned pantiles, but they should be laid with a pitch of not less than 45 degrees, and with a good lap. If not laid with mortar, however, tiles are apt to be stripped by wind, and will not effectually keep out driving rain and fine snow. The Norfolk system of lathing, which consists in laying three rows of plaster laths down each row of tiles, to hold the mortar upon which the tiles are then bedded, is a very effective way of making a good and secure pantile roof. Another way is to lay over the spars or rafters, before the tile laths are fixed, a covering of thin waterproof material, of which many kinds are now on the market. With this method the tiles may be bedded on each other with just sufficient mortar to keep them from moving. (See illustration on preceding page, H.)

Windows.

The Yorkshire slide (see illustration on preceding page, B) is recommended as the simplest and least expensive form of window. If an oak sill is used, with oak pegs instead of an outside retaining fillet, durability is ensured. The casement window (A) comes next in the matter of simplicity, and a portion of the sash can be hung at the top, so as to open outwards and permit of ventilation if for any reason the casement must be kept closed.

Eaves Gutters.

The best form of eaves gutters is the thick cast-iron half-round 5-in. size, with strengthened edge. It should be carried on stout wrought irons screwed to the spars or rafters ; or adjustable bearers make a good support and facilitate the provision of the even falls required to clear all the spouts of water. Eaves gutters in front of cart-sheds are easily injured, and in such a position the gutter may with advantage be set on a protecting board (F and G)—preceding page.

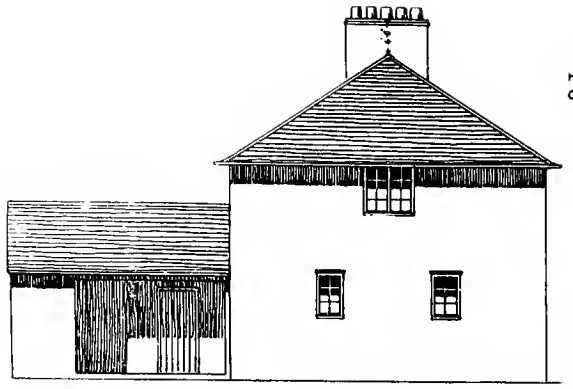
Floors.

The question of the best flooring for the living-room is one of some difficulty. So far as the room serves the purposes of a workroom, there is no doubt that a tiled floor is the most satisfactory and the easiest to keep clean ; but so far as the room is used as a sitting-room there is the objection that a tiled floor is cold. A boarded floor may be provided, but in that case it will most likely be covered with linoleum by the occupier, and, apart from the expense involved, linoleum has a decided tendency to encourage dry rot when laid upon a new board floor. If such a floor is provided, exceptionally thorough ventilation underneath it should be secured. On the whole, a tiled floor in the living room would seem best, but where there is local prejudice against a tiled floor probably the second best is an ordinary boarded floor with thorough ventilation underneath. Air-bricks on one side of a room only are not sufficient ; ventilation may easily be secured under an adjacent solid floor by using a few field drain-pipes to connect with the air grid in the outer wall.

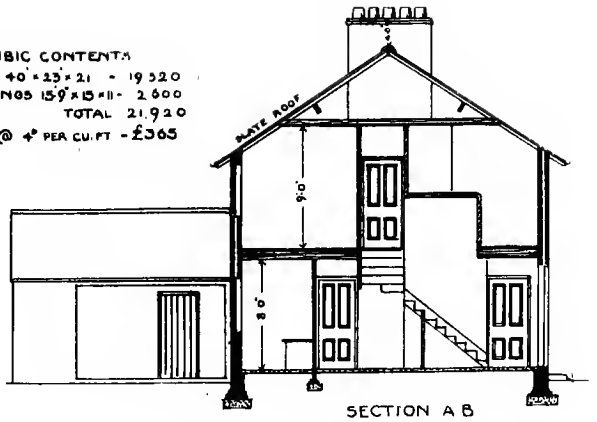
For the larder and dairy, and also for the scullery, a concrete floor will prove economical and satisfactory. In the parlour a boarded floor on joists will naturally be laid.

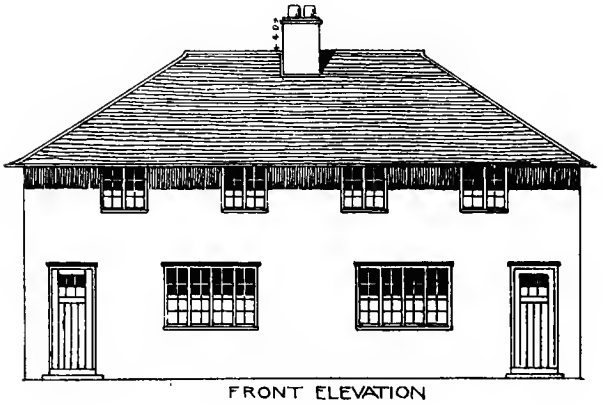
PAIR OF SMALL HOLDERS' HOUSES.

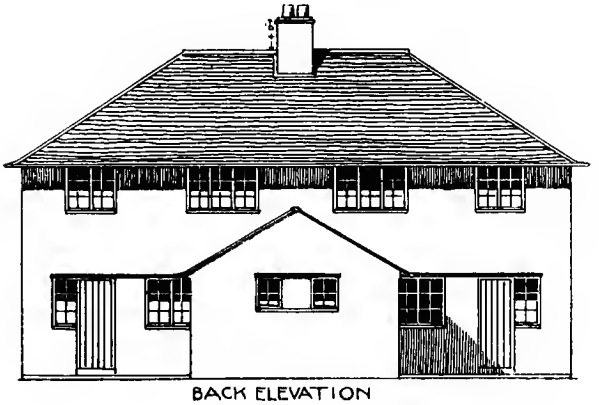
THE illustration on the opposite page shows a pair of small holders' houses embodying what the Departmental Committee consider to be the minimum amount of accommodation permissible where a dairy is necessary. If the dairy is not required, the space should be occupied by the fuel store, with the E.C. either adjoining or built detached. The larders, being east and west, should have shutters or other protection from the summer sun. As two bedrooms are on the north side, it would be an advantage that the aspect should not be due north and south. The houses are designed for a slate roof. They are planned as a pair with a view to economy.

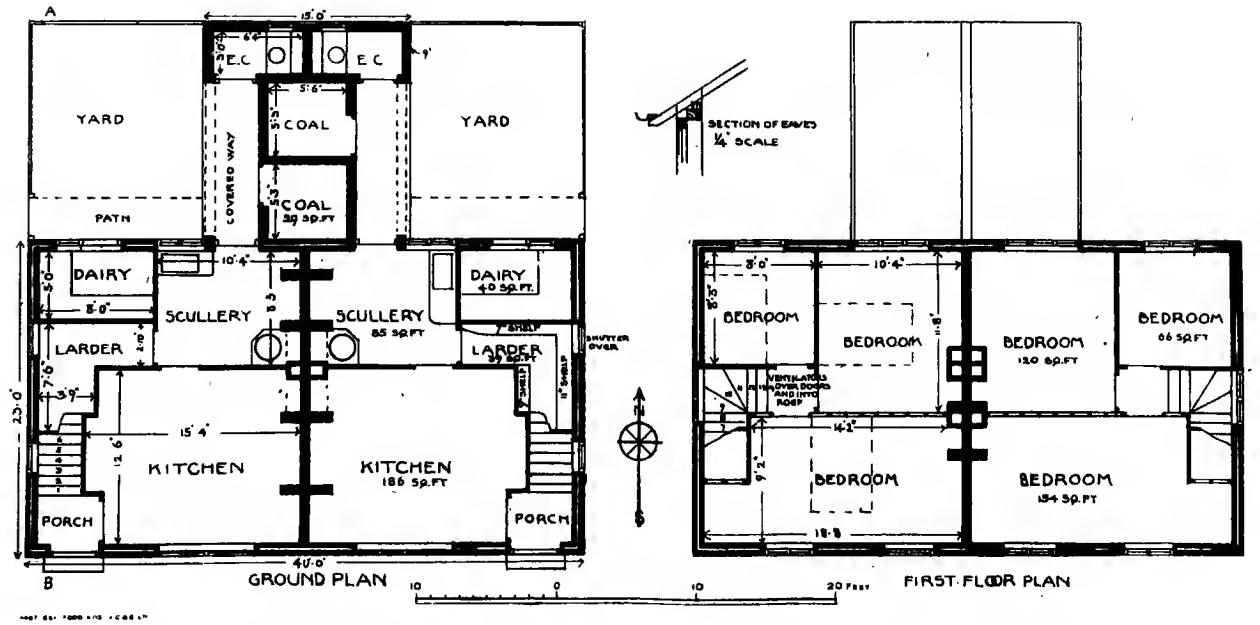


CUBIC CONTENTS
HOUSES 40 × 23 × 21 = 19320
OUTBUILDINGS 15·9 × 15 × 11 = 2600
TOTAL 21,920
@ 4d PER CU. FT = £365









PAIR OF SMALL HOLDERS' HOUSES OF MINIMUM SIZE, AS SPECIFIED BY DEPARTMENTAL COMMITTEE.

CHEAP CONCRETE COTTAGES FOR AGRICULTURAL LABOURERS.

By W. J. Swain.

IN this article I give detailed particulars of the concrete cottage built by Messrs. Rowntree, of York, in 1912, from plans prepared by myself, as an attempt to solve the question of cheap, well-built, sanitary cottages for agricultural labourers.

Having designed very largely and erected numerous structures in reinforced concrete, I am convinced that undoubtedly this is the material to which architects will have to look for cheapness combined with durability, and the example that I here set forth will, I trust, go a long way to show that there is a very great future for concrete generally.

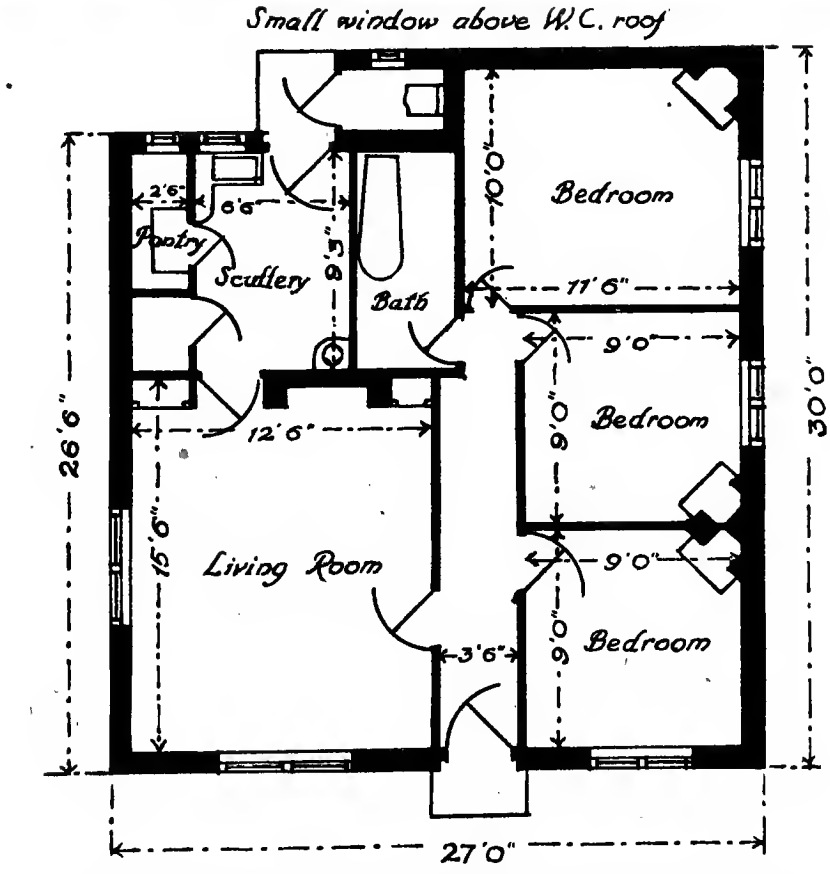
It must, of course, be borne in mind that concrete work must be well done, and that exceptional care must be taken in the choice of materials and proportions, if good results are to be obtained. The architect is often inclined to look askance at concrete because his experience has taught him that in all probability he will be troubled with expansion cracks and dampness, especially with flat roof construction. From practical experience I am able to state that, with the proper selection of materials and the use of Portland cement which will pass in every respect the British Standard Specification, there is little fear of these troubles arising.

The great mistake often made in connection with concrete work is to use either too great a proportion of cement or too little. Some men seem to think that if they crowd their materials with a rich mixture of cement they will produce good results, but this is a fallacy. Each particle of aggregate should be thinly coated with cement grouting, and the interstices filled with the smaller proportions of aggregate, and not cemented together with lumps of pure cement, as is often the case, when difficulty with uneven expansion is sure to follow. As a similar case in point, no joiner would think of putting a thick layer of glue to obtain strength when joining up his woodwork.

Concrete for roofs should be composed of gravel or similar impervious stone. I have found that the most simple and satisfactory method of obtaining proper proportions of aggregate is to pass the gravel through a screen having a circular mesh of $\frac{3}{4}$ in. diameter, and grading the aggregate down from $\frac{3}{4}$ in. to pea size. Put this clean wetted gravel into a bucket, filling level with the top, and into this pour a sufficient quantity of water to fill up the interstices to overflowing. The proportion of water necessary to fill the bucket in bulk is the proportion of sand to be added to the gravel. Both sand and gravel must be well washed and free from any foreign matter. Having obtained the proportions of sand required to mix with the gravel, the best proportion of cement is 1 to 6 in bulk. If these instructions are followed, and the concrete is thoroughly wetted in the mixing and kept wet for a few days, there is little fear of leaky roofs.

Unsatisfactory concrete work is generally due to the contractor taking very little heed of the concrete because he intends to give it a fancy finish. This on no account must be done if you would have good sound work. The architect must insist upon the concrete being put down in a thoroughly wet mass, and when it has set sufficiently to allow trowelling, the original surface must be well trowelled with a metal trowel. If you allow the concrete to set, and follow on with a rich mixture of fancy topping, you are sure to get a variation of expansion, and invariably there will be expansion cracks; indeed, in many cases the finishing coat will leave the body of the concrete.

The experimental cottage here illustrated was constructed in every way to pass the local by-laws of York. The external walls are 9 ins. thick. There was, of course, no necessity to



EXPERIMENTAL CONCRETE COTTAGE, YORK, BUILT IN 1912, AT A COST OF £89.

W. J. Swain, Architect.

use such a thickness, as I have built a two-storey house at the seaside where the walls are only $4\frac{1}{2}$ ins. thick ; but the by-laws of York would not allow me to reduce. In carrying out the work I therefore cast blocks in moulds. A rough-cast finish was got by putting a thin layer of sand at the bottom of the moulds, embedding into some sharp clean basic slag, and next about 4 ins. of good solid gravel concrete. The mould was then filled up with concrete composed of clean screened boiler ashes. The ash concrete was used for two purposes—first, because it was cheaper than the gravel, and, secondly, because it forms a good surface for skimming over with plaster, and prevents condensation on the walls. This course I adopt also for reinforced concrete flat roofs. When making the slab, put down 1 in. at least of good ash concrete and cover over immediately with the gravel concrete. This gets over any difficulty experienced with extreme variations of temperature.

The internal walls were made entirely of ash concrete $2\frac{1}{2}$ ins. thick.

Having described concrete generally, and the methods of building blocks, I will proceed with the *modus operandi* for constructing a cottage.

Strip off the vegetable soil and fill in with hard clinker ashes or broken stone or other suitable material. Lay over the whole of the site a 4 in. concrete slab composed of good gravel concrete, and bring up the sides the width of the walls to 6 ins. above the existing earth line. This forms a raft similar to an inverted box-lid. Care must be taken that the whole of the concrete necessary to form this slab and the sides shall be done in one day, in order to prevent cracks or faulty adhesion. After a couple of days' setting, you can proceed to lay the blocks forming the external walls. These walls, which p resent a very rustic appearance from the outside, have, when cast, been smoothed off on the internal face, so as to dispense with expensive plastering. In many cottages it would be quite sufficient to give these walls a coating of lime-wash or distemper, but in the cottage in question I had the walls lightly skimmed with a coat of lime-putty gauged with plaster of Paris.

The windows were built in as the work proceeded, and the fascia was formed of solid concrete. This was done in order that I could embody small pieces of steel to stretch the wires for the reinforced concrete roof. The floor-boards come in useful for centering for the latter.

The concrete roof was composed of gravel concrete carefully graded and mixed 6 to 1. The wire reinforcement was stretched across from side to side, and the slab cast 4 ins. thick with stiffening beams on the outside so as to dispense with expensive wood forms, and also so as not to produce unsightly ceilings. This slab was trowelled after it was properly set and has proved itself to be perfectly watertight, and has had as many as forty persons standing on the top at one time.

Ash concrete was placed upon the gravel concrete floors to the necessary thickness, and the floor boards were nailed down to the same. When fastening the boards to the breeze or ash concrete foundations, care must be taken that the boards bed down solid on to the concrete. If the concrete is not perfectly level, fine ash should be sprinkled over in order that there shall be no air spaces between the boards and the concrete. The concrete must also be thoroughly dry before being covered with boards. Unless these two matters are carefully watched, there will be trouble with rot. My experience, especially with large factory work, is that, provided you have dry concrete and expel the whole of the air from under the boards, you can get a thoroughly sound floor. Immediately you try to get a small air-space by inserting strips, as is often done, you will be troubled with dry-rot, which spreads very quickly in vitiated air.

The chimneys were very carefully worked out to prevent down-draughts by providing adequate openings on each side covered with concrete slab. It is often said that low-shaft chimneys will not draw, but I have had no difficulty, although this cottage is placed on low land at the bottom of an orchard and is surrounded by tall trees and higher buildings.

The living-room is provided with a kitchen range, and the copper in the scullery is built at the back of the range with specially constructed flue and damper, so that the water in the copper is heated by the fire of the range. From the copper a pipe is fixed so that hot water can be discharged into the bath. In this case I constructed a w.c., as earth closets are not allowed, but the cost given later does not include drainage, as the cost of the w.c. pan, seat, and cistern complete is more than the cost of an ordinary earth closet or privy—which would be provided if the cottage were erected, as intended, for farm-labourers.

Below are figures showing the sizes of rooms, &c., and the exact cost for labour and materials. But I must here state that no charge has been made for the boiler ashes, which were supplied free, though I had to pay 1s. per load cartage, which is included in the cartage account.

Sizes of Rooms.

Living-room	15 ft. 6 in. × 12 ft. 6 in.
Scullery	9 ft. 3 in. × 6 ft. 6 in.
Larder	5 ft. 2 in. × 2 ft. 6 in.
Coals	3 ft. 6 in. × 2 ft. 6 in.
Bath room	9 ft. 3 in. × 4 ft. 3 in.
Bedroom No. 1	11 ft. 6 in. × 10 ft. 0 in.
Bedroom No. 2	9 ft. 0 in. × 9 ft. 0 in.
Bedroom No. 3	9 ft. 0 in. × 9 ft. 0 in.
Passage	15 ft. 6 in. × 3 ft. 6 in.

Height of Rooms, 8 ft. 6 ins.

Prime Costs.

LABOUR.

	£ s. d.
Labourer	13 10 8½
Bricklayer	7 10 6
Carpenter and Joiner	8 16 0
Painter	0 13 4
Plasterer	1 8 10
Plumber	0 17 6

Materials.

	£ s. d.
Sand—	
Tons. cwt. qrs. lbs.	
18 15 3 0 at 3s. 3d. ton	3 1 1
Gravel—	
10 6 0 0 at 6s. 6d. ton=£3 6s. 11d.	
5 8 6 0 at 6s. ton = £1 12s. 0d.	4 18 11
Slag—	
2 18 3 14 at 7s. 6d. ton	1 2 2
Steel (round mild)—	
Cwts. qrs. lbs.	
2 2 25 ⅝-in. at 10s. 4½d. per cwt. =£1 8s. 2d.	
1 2 25 ½-in. at 8s. per cwt. =13s.	2 1 2
Cement—	
5 tons Portland at 35s. 8d. per ton =£8 18s. 4d.	
5 9-10th tons ditto at 31s. 7d.* per ton =£9 6s. 5d.	18 4 9
"Pudlo"—	
5 lb. at 1s. 6d. per lb.	0 7 6
Bricks	0 18 6
Ironmongery	2 1 11½
Timber	10 4 3
Bath	1 16 6
Set pot	0 8 2
Kitchen range (3 ft. 6 in.)	1 15 6
Sink (24½ by 16 complete)	0 8 6
W.C. pan, seat and cistern	1 1 9
Sanitary pipes and bends	1 1 0
Paint	0 4 5½
Plaster	0 13 8
Putty, lime	0 11 4
Plumbing Materials	4 10 7
Carting	1 4 0
	£55 15 10

	£ s. d.
Cost of labour	32 16 10½
Cost of materials	55 15 10
Total prime cost	88 12 8½

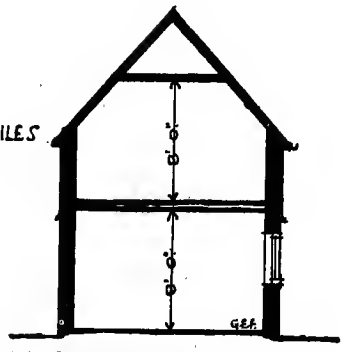
* Price of contract we had for cement advanced afterwards to 35s. 8d. per ton.

This cottage has been viewed by persons interested in the housing problem from all over the country. The Right Hon. Walter Runciman also paid it a visit and expressed great satisfaction with the accommodation and appearance.

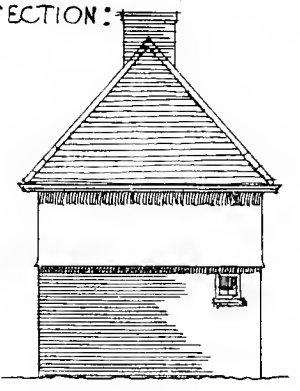
COTTAGES FOR RURAL AND URBAN WORKERS.

COTTAGE AT DIBDEN. SOUTHAMPTON :

TOTAL COST ABOUT £200.
11" HOLLOW USED UP TO UNDERSIDE OF JOISTS AFTER WHICH IS PLASTER ON EXPANDED METAL :
ROOFING IS OF BRIDGWATER TRIPLE TILES.

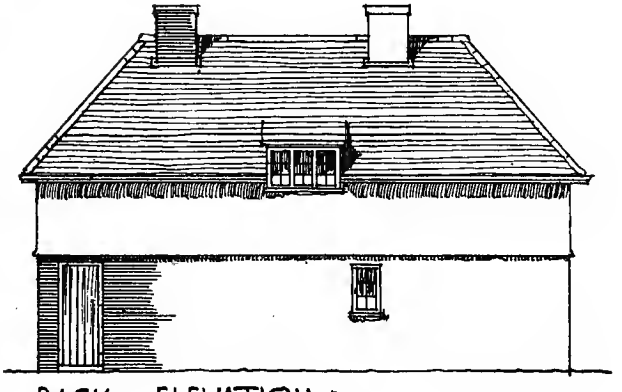


SECTION :

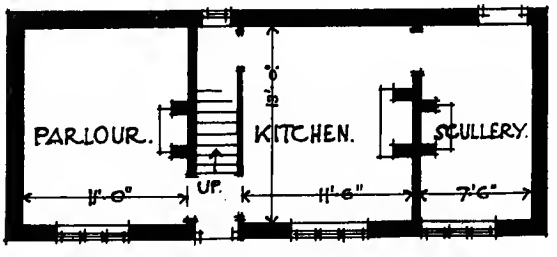


END ELEVATION :

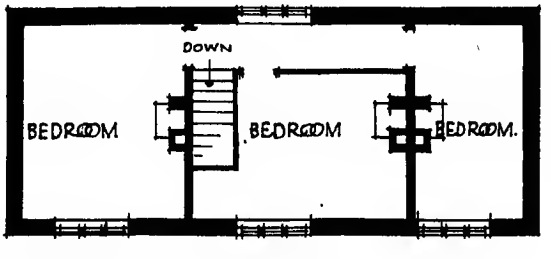
FRONT ELEVATION :



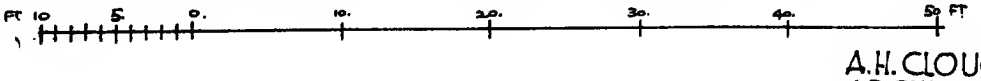
BACK ELEVATION :



GROUND FLOOR PLAN :



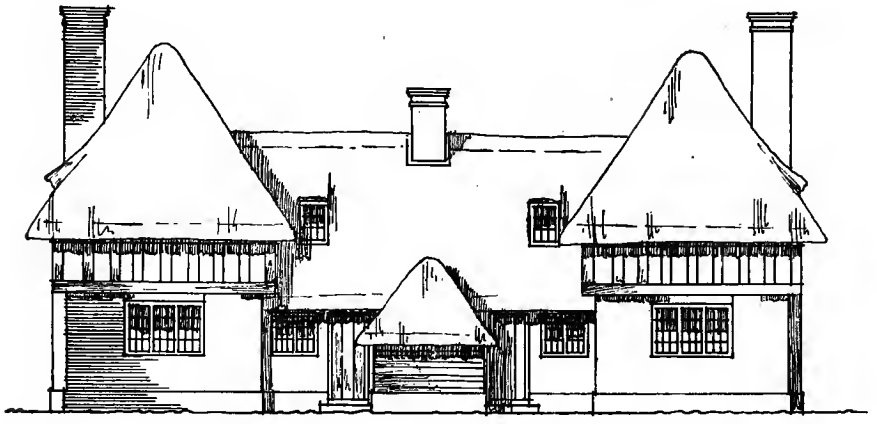
FIRST FLOOR PLAN :



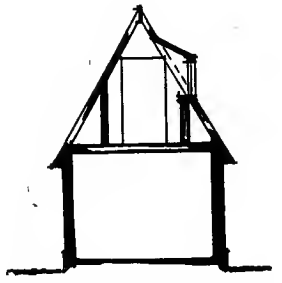
A.H. CLOUGH.
ARCHITECT.

PAIR OF COTTAGES AT SHEEPWASH. NEWTOWN :

TOTAL COST OF COTTAGES £200 EACH
11" HOLLOW WALLS USED. WITH 9"×3" AND 9"×9" CREOSOTED DEAL FRAMING.
BRICKNOGGING 4½" THICK.
THE UPPER STOREY PROJECTS 14" OVER THE LOWER.
ROOF IS OF STRAW 14" THICK.

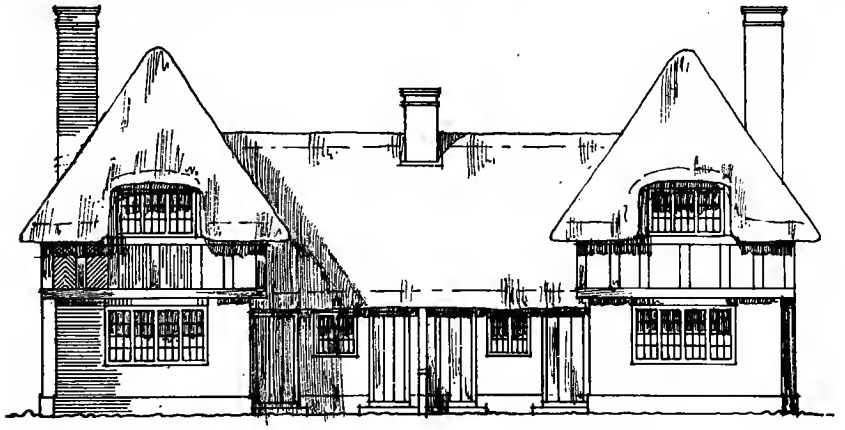


WEST. ELEVATION :

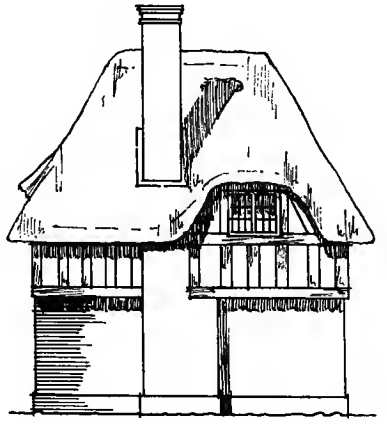


SECTION :

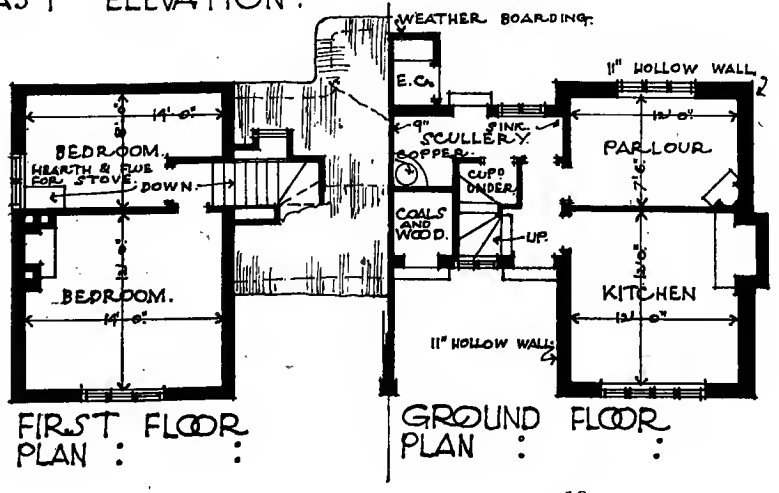
FT. 10 5 0 10 20 30 40 FT



EAST ELEVATION :

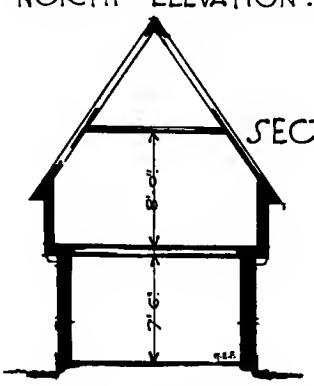


NORTH ELEVATION :



FIRST FLOOR PLAN :

GROUND FLOOR PLAN :

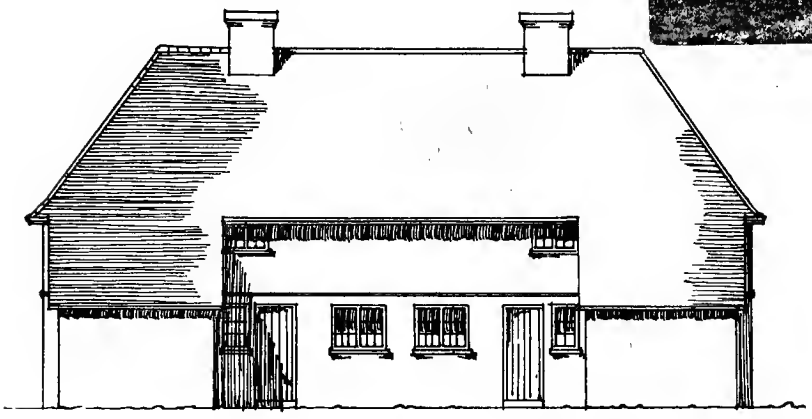


SECTION :

FRANCIS BACON ARCHITECT :

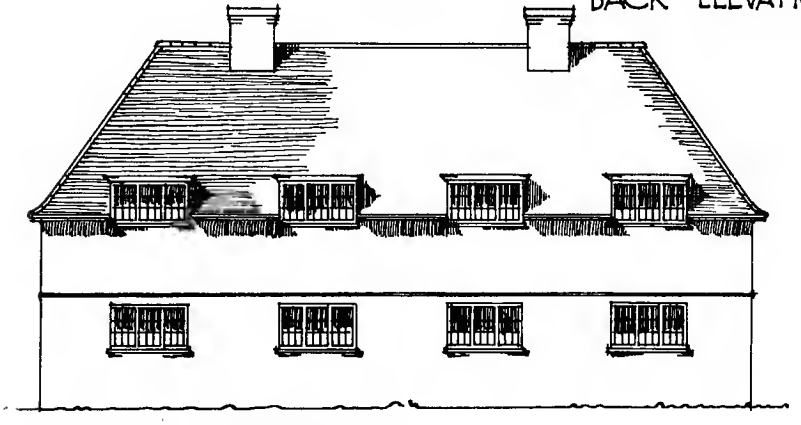
PAIR OF COTTAGES AT DIBDEN. SOUTHAMPTON :

COST ABOUT £150 PER COTTAGE

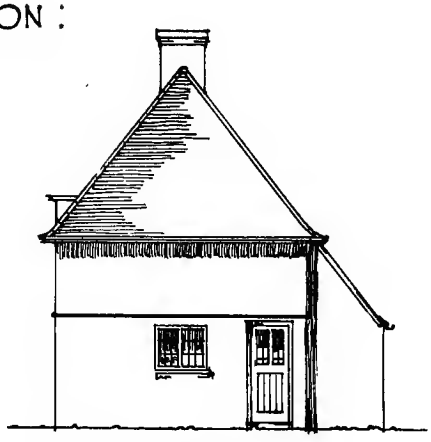


11" HOLLOW WALLS UP TO UNDERSIDE OF JOISTS AFTER WHICH IS PLASTER ON EXPANDED METAL
ROOFING IS OF BRIDGWATER TRIPLE TILES

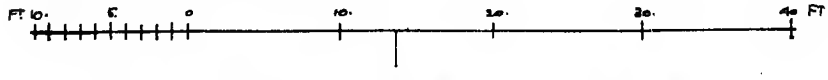
BACK ELEVATION :

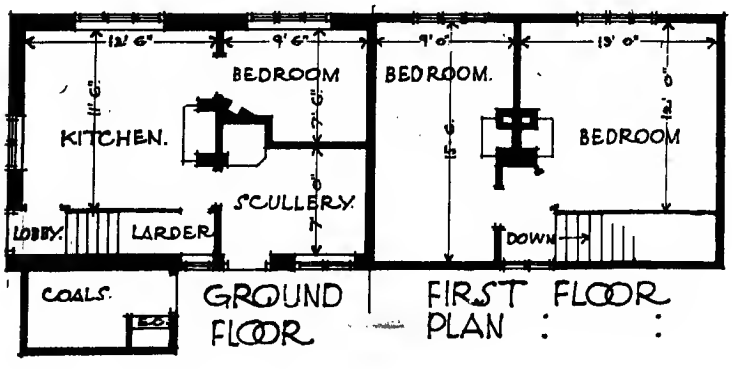


FRONT ELEVATION :



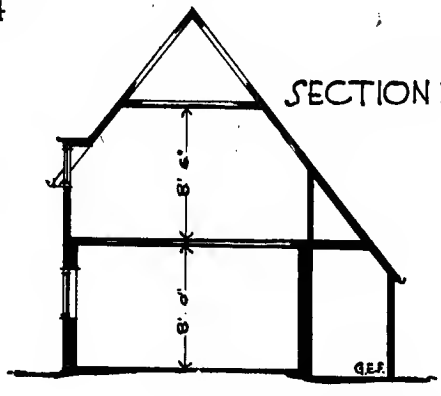
END ELEVATION :





GROUND FLOOR PLAN

FIRST FLOOR PLAN :

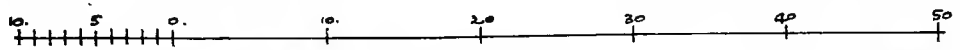


SECTION :

A. H. CLOUGH. ARCHITECT.

PAIR OF COTTAGES AT WOKING :

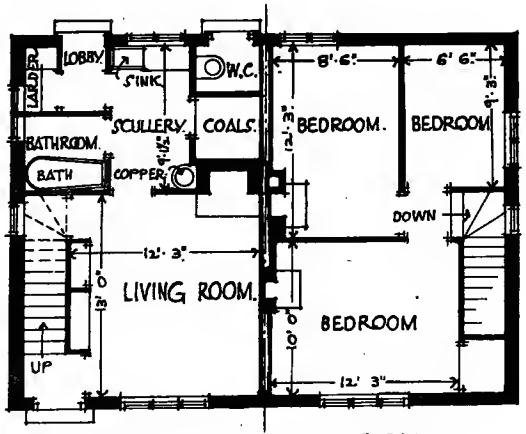
RED SAND FACED BRICK PLINTH WITH ROUGHCAST OVER. ROOFING OF RED SAND FACED TILES.



FRONT ELEVATION :

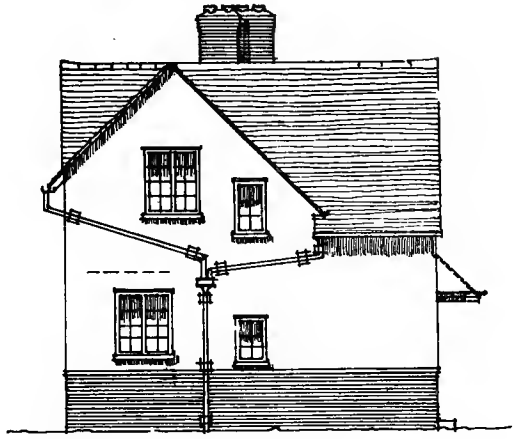
BACK ELEVATION :

COST £220 PER COTTAGE

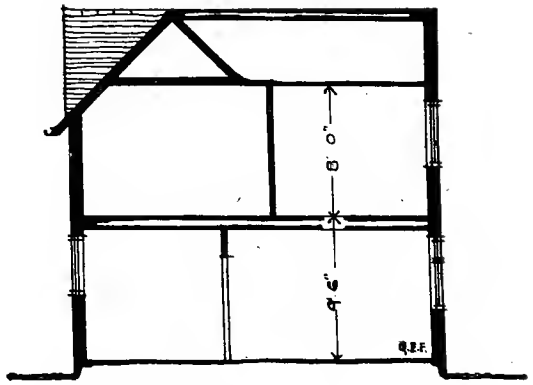


GROUND FLOOR PLAN :

FIRST FLOOR PLAN :



END ELEVATION :



SECTION :

E C.P. MONSON. F.R.I.B.A. F.S.I
ARCHITECT :

THREE COTTAGES AT BOCKING. ESSEX :

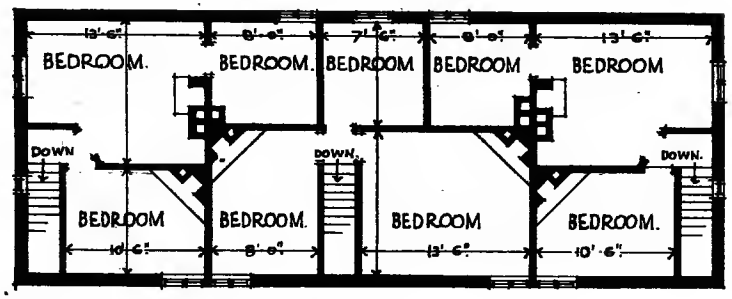
COST £150 PER COTTAGE INCLUDING DRAINAGE

FLETTON BRICK 9" WALLS ROUGHCAST OUTSIDE AND WHITEWASHED.

ALL ROOMS PLASTERED AND DISTEMPERED EXCEPT SCULLERY. WHICH IS WHITEWASHED.

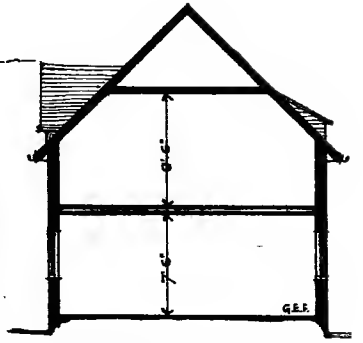
ROOFING OF RED TILES.

10. 5. 0 10 20. 30 40 50 FT.

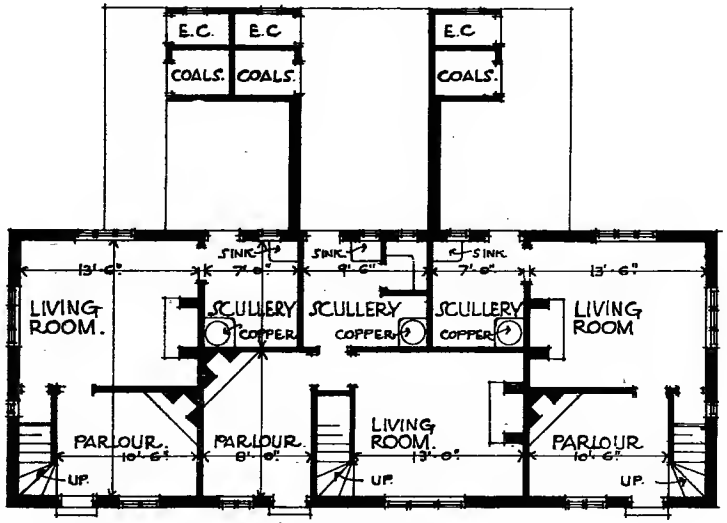


FIRST FLOOR PLAN :

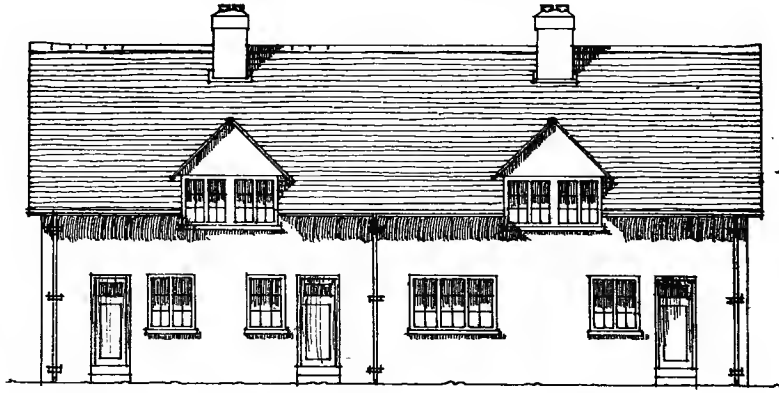
BACK ELEVATION :



SECTION :



GROUND FLOOR PLAN :

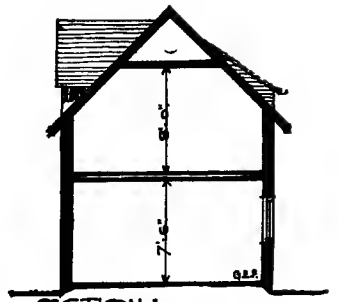


FRONT ELEVATION :

DESIGNED BY MISS M. E. TABOR :

SIX COTTAGES AT CHURCH STREET, BOCKING, ESSEX :

COST £ 135. PER COTTAGE. INCLUDING DRAINAGE.
FLETTON BRICK 9" WALLS ROUGHCAST
OUTSIDE AND WHITEWASHED.
ALL ROOMS PLASTERED & DISTEMPERED EXCEPT
SCULLERY WHICH IS WHITEWASHED. RED TILE ROOF.

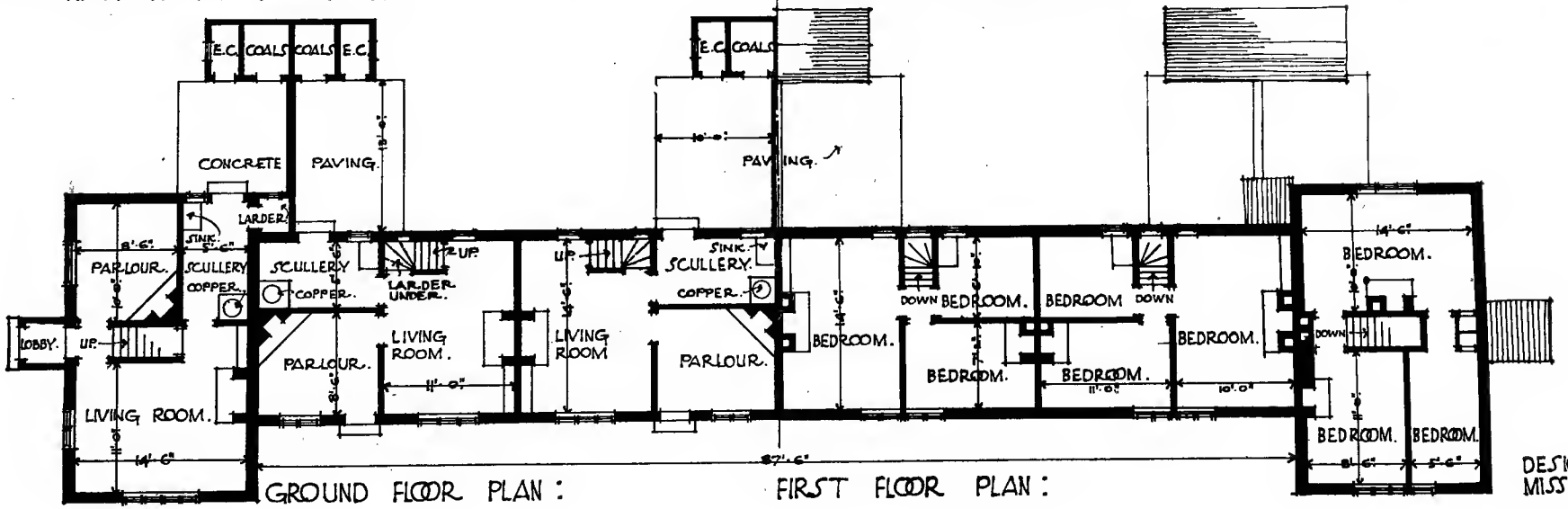


SECTION :

FT. 10. 5. 0. 10. 20. 30. 40. 50 FT.

HALF FRONT ELEVATION :

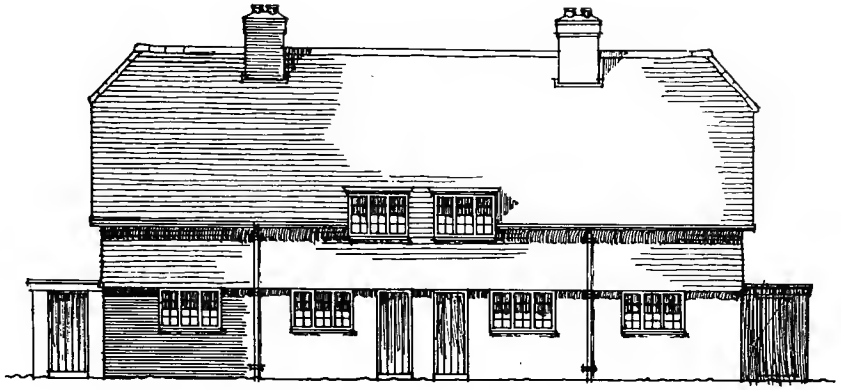
HALF BACK ELEVATION :



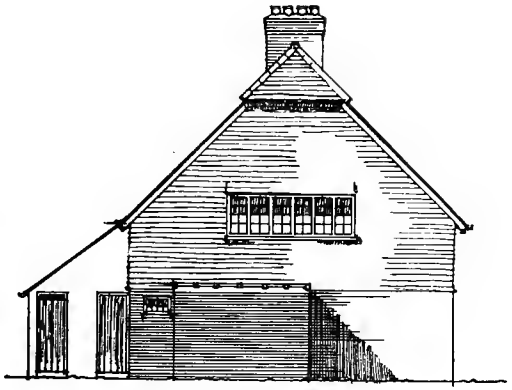
GROUND FLOOR PLAN :

FIRST FLOOR PLAN :

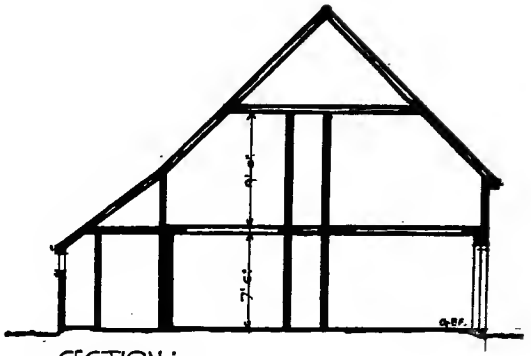
DESIGNED BY
MISS. M. E. TABOR.



FRONT ELEVATION :



SIDE ELEVATION :

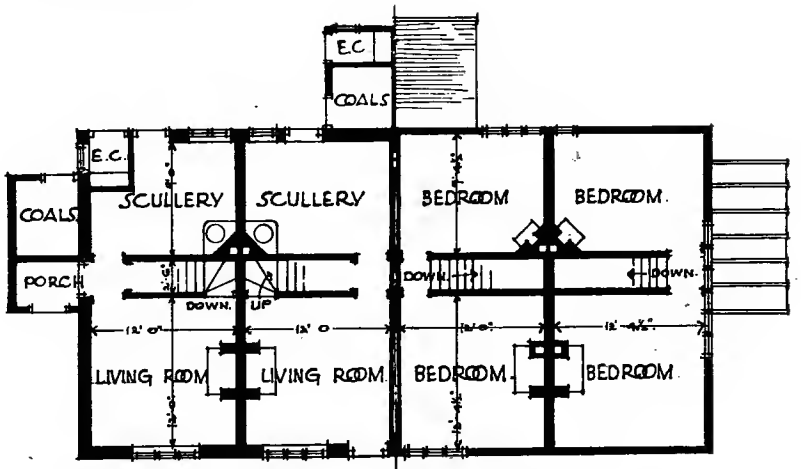


SECTION :

FOUR COTTAGES AT MARSH GREEN. HARTFIELD SUSSEX :

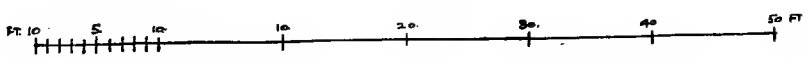
COST £128 PER COTTAGE

11" HOLLOW WALLS USED UP TO FIRST FLOOR WITH TIMBER STUDDING AND WEATHER TILING ABOVE : :



GROUND FLOOR PLAN :

FIRST FLOOR PLAN : :



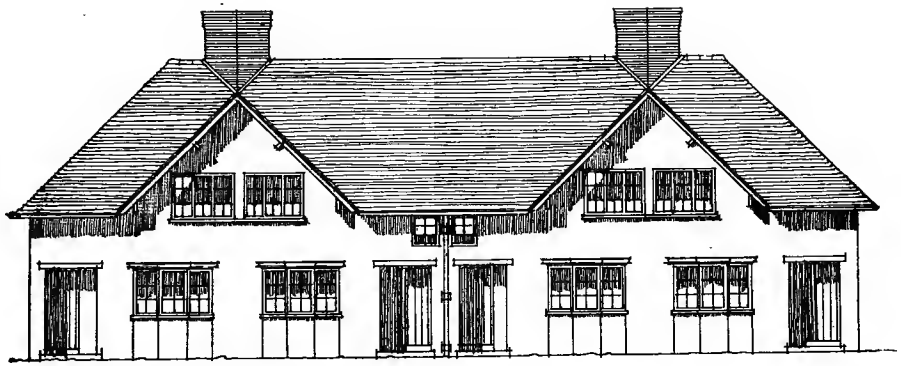
A.H. CLOUGH ARCHITECT.

FOUR COTTAGES IN GARDEN ESTATE. NR YORK :

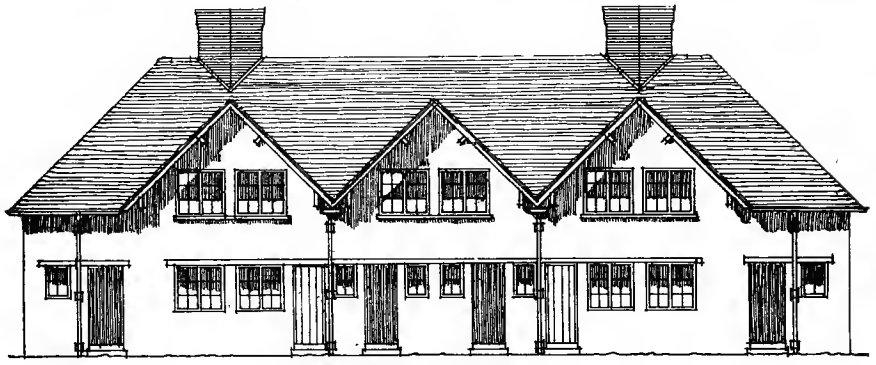
WALLING OF LOCAL BRICKS WHITEWASHED
ROOFING OF SAND FACED HAND MADE TILES
WOODWORK RED DEAL PAINTED

COST £ 194 PER COTTAGE.

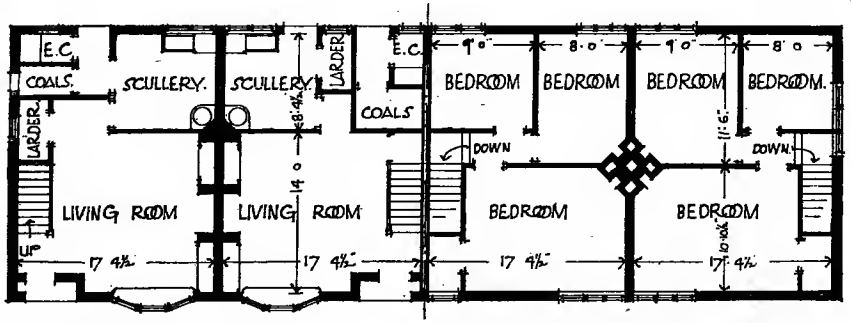
10 5 0 10 20 30 40 50. 60 FT



FRONT ELEVATION :

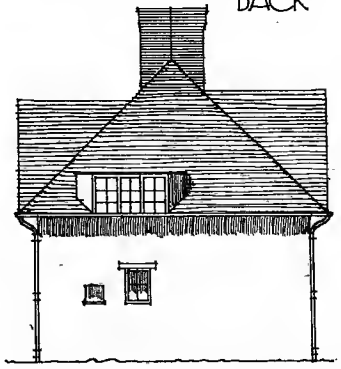


BACK ELEVATION :

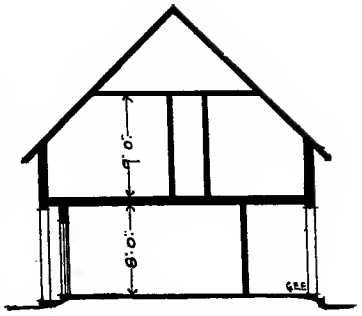


GROUND FLOOR PLAN :

FIRST FLOOR PLAN :



SIDE ELEVATION :



SECTION :

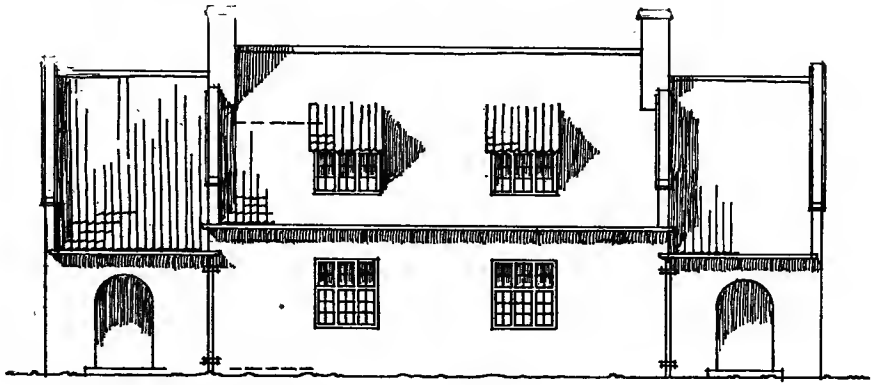
BARRY PARKER & RAYMOND UNWIN ARCHITECTS :

PAIR OF COTTAGES. AT BURTON. CHESHIRE :

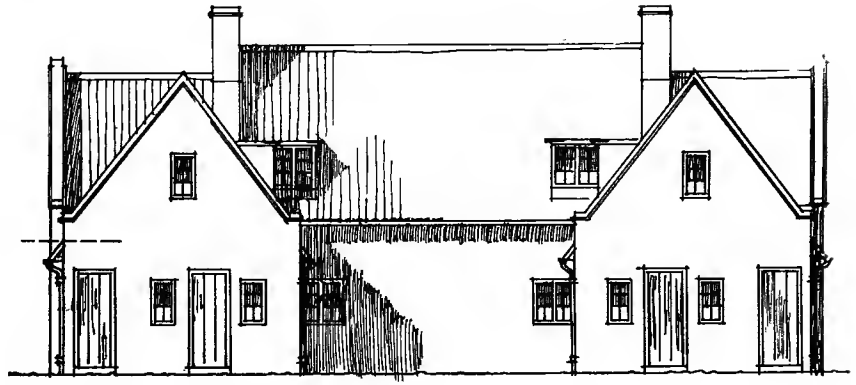
COST £220 · PER COTTAGE.

11" HOLLOW WALLS WHITEWASHED
ROOFING OF PANTILES.

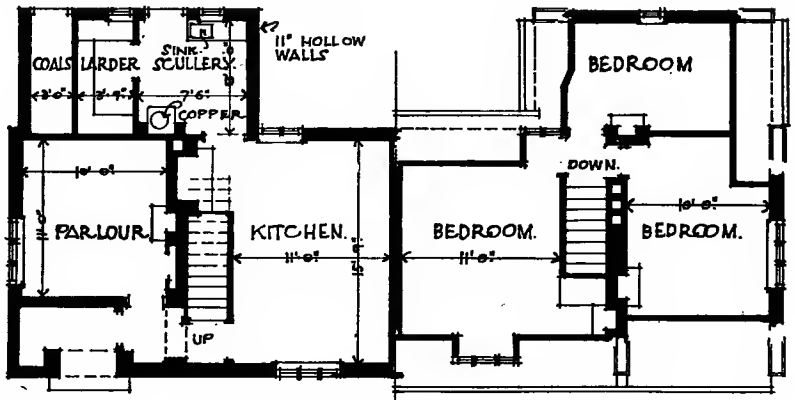
FT. 10. 5. 0. 10. 20. 30 40 50 FT



FRONT ELEVATION :

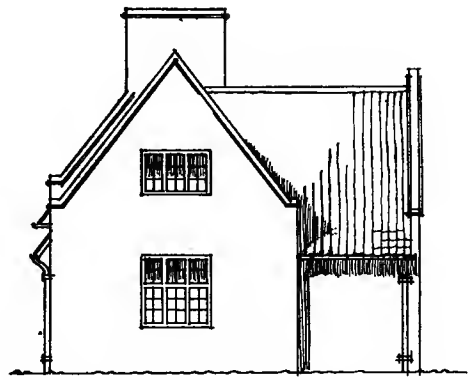


BACK ELEVATION :

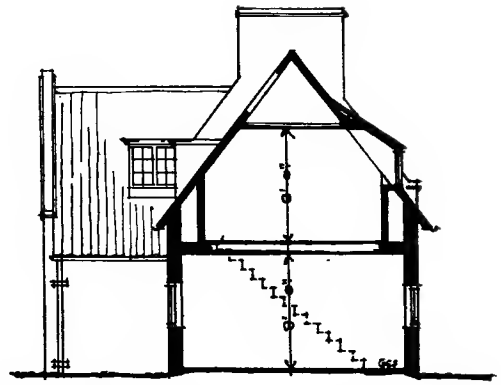


GROUND FLOOR PLAN :

FIRST FLOOR PLAN :



END ELEVATION :



SECTION :

H.S. GOODHART-RENDEL
ARCHITECT :

25

D

PAIR OF COTTAGES AT BURTON MANOR CHESHIRE.

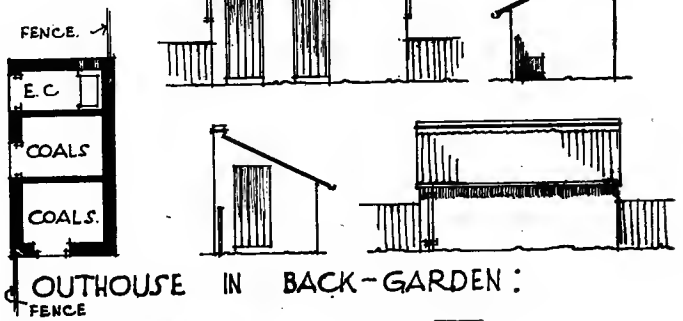
COST ABOUT £210 PER COTTAGE

11" HOLLOW WALLS JOINTS FILLED FLUSH AND LIMEWHITED EXTERNALLY

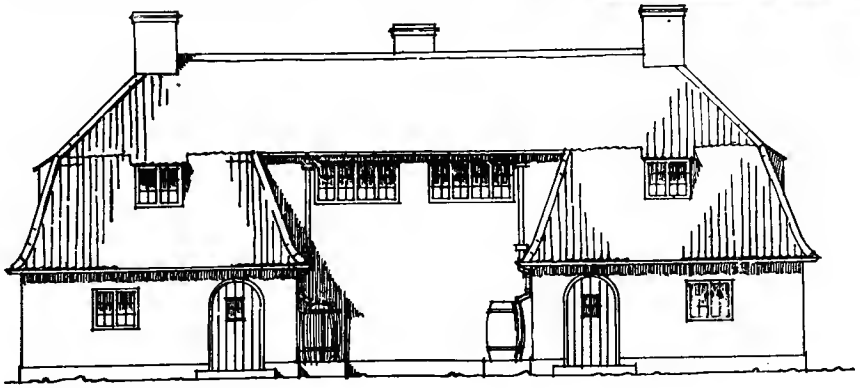
TARRED PLINTH ROUND BUILDING

BRICK ON EDGE ARCH ABOVE ALL WINDOWS AND A 9" ARCH IN TWO RINGS OVER DOOR OPENINGS IN FRONT ELEVATION

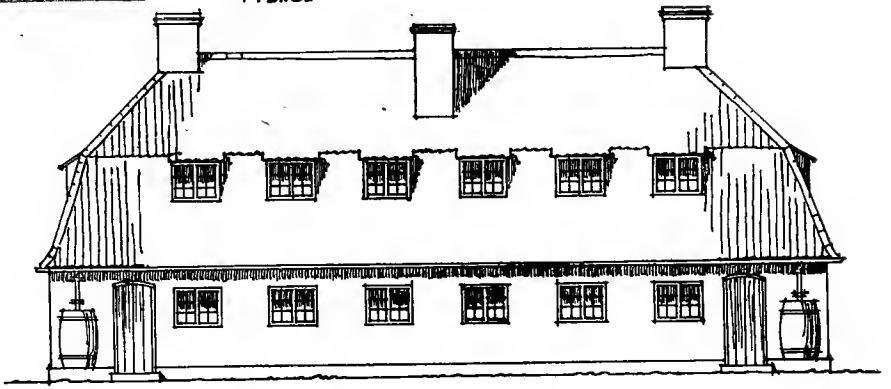
ROOFING OF PANTILES WITH SOFFITE OF EAVES PLASTERED :



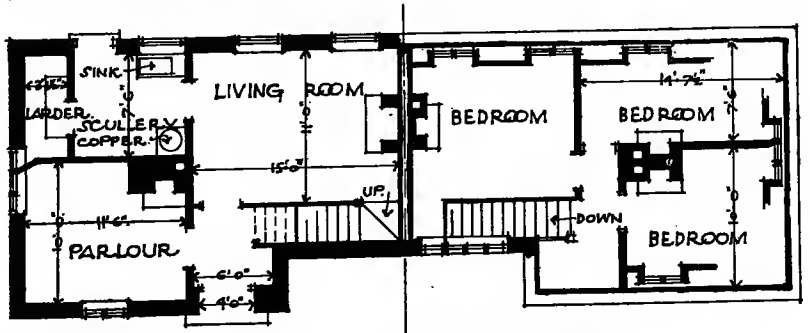
OUTHOUSE IN BACK-GARDEN :



FRONT ELEVATION :

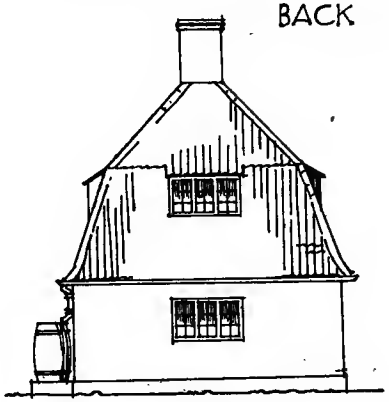


BACK ELEVATION :

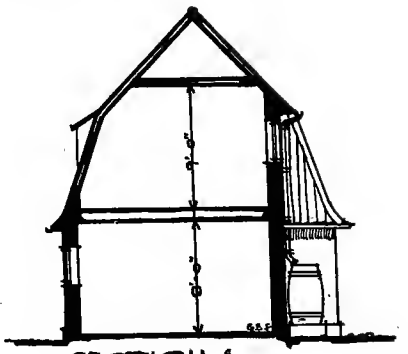


GROUND FLOOR PLAN :

FIRST FLOOR PLAN :



END ELEVATION :



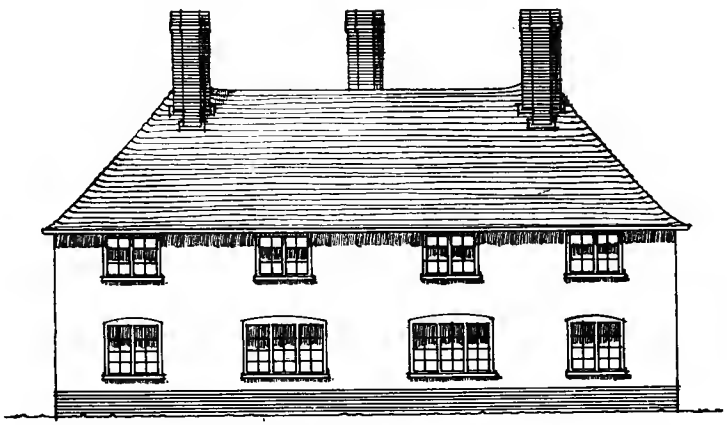
SECTION :

H. S. GODHART-RENDEL. ARCHITECT :

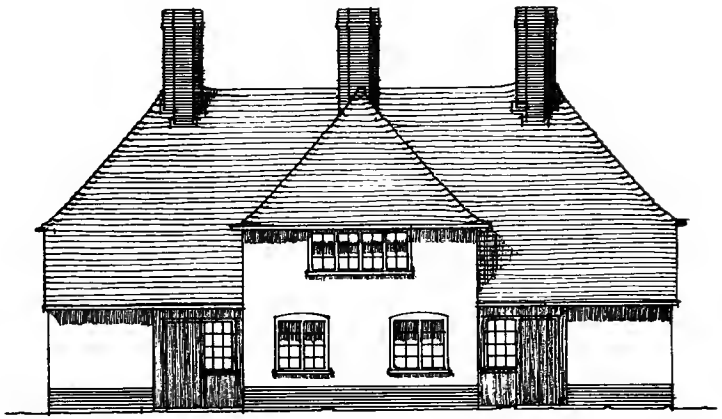
PAIR OF COTTAGES : BUCTON COURT ESTATE, NR LEOMINSTER

COST £250 PER COTTAGE

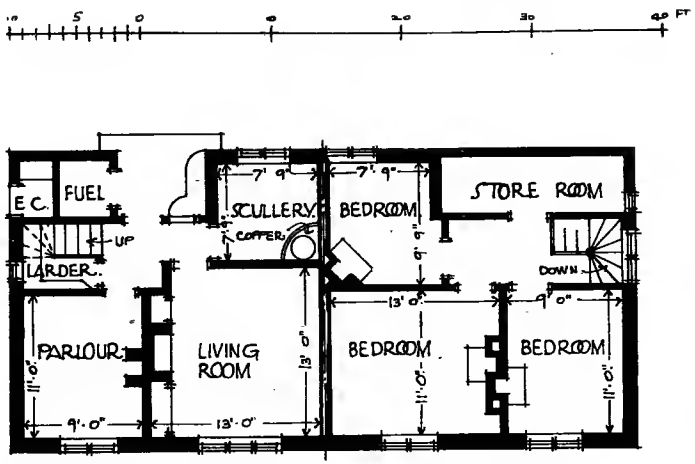
11" BRICK CAVITY WALLS
ROOFING OF PLAIN TILES
HOPPER WINDOWS FITTED THROUGHOUT



FRONT ELEVATION :

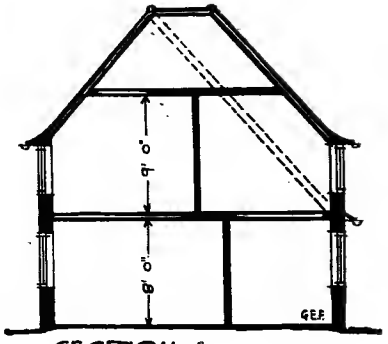


BACK ELEVATION :



GROUND FLOOR PLAN :

FIRST FLOOR PLAN :



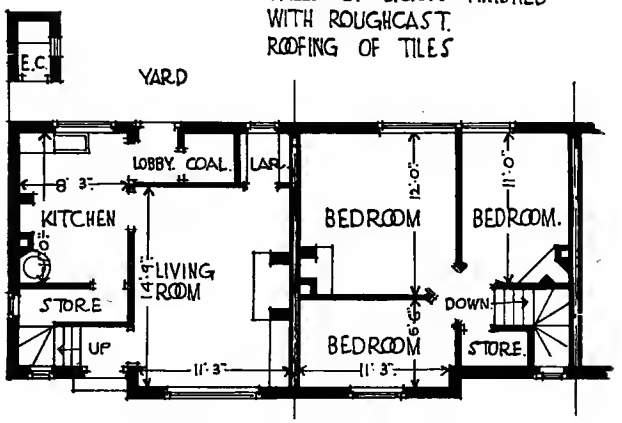
SECTION :

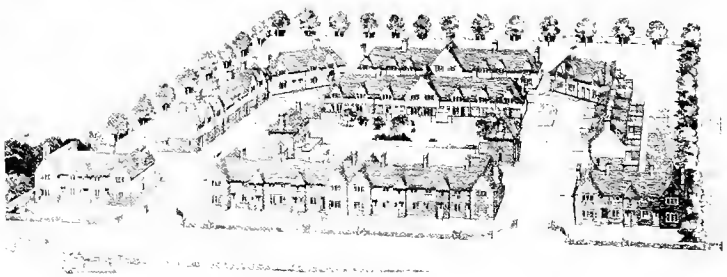
CLOUGH WILLIAMS - ELLIS
ARCHITECT :

BLOCK OF FIVE COTTAGES BURY ROAD THETFORD :

COST £130 PER COTTAGE

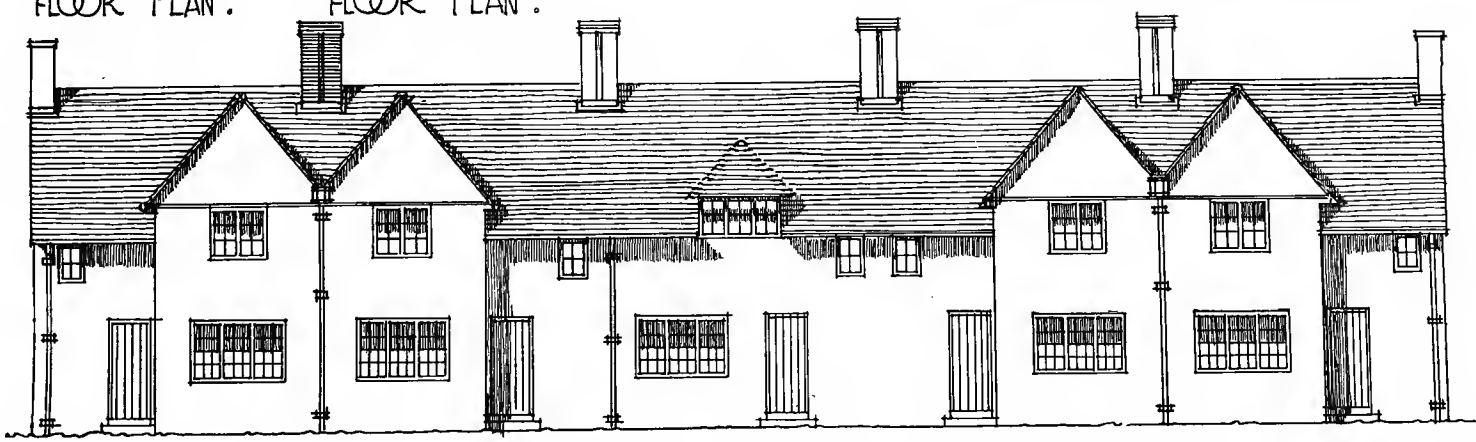
WALLS OF BRICK FINISHED WITH ROUGHCAST.
ROOFING OF TILES

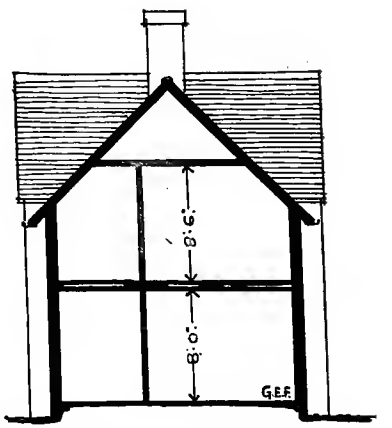




PART GROUND FLOOR PLAN :

PART FIRST FLOOR PLAN :





FRONT ELEVATION :

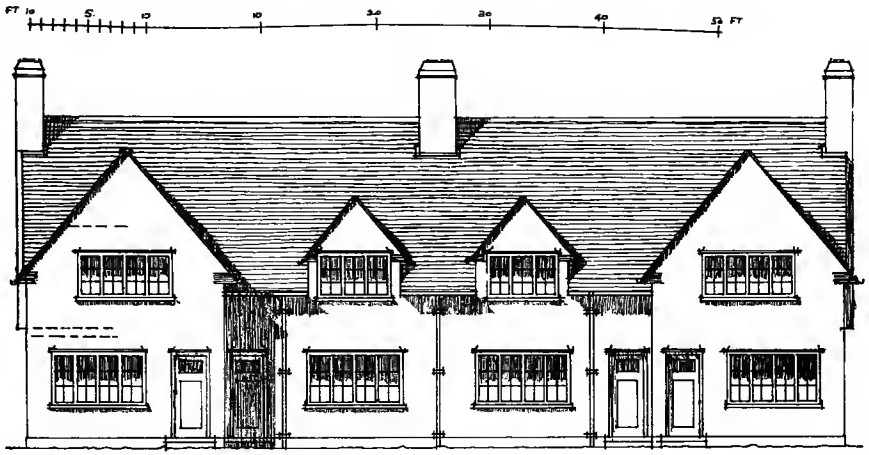
FT 10 5. 0 10 20 30 40 50 FT

STANLEY J WEARING A.R.I.B.A.
ARCHITECT :

BLOCK OF FOUR COTTAGES : THE GARDEN VILLAGE HULL :

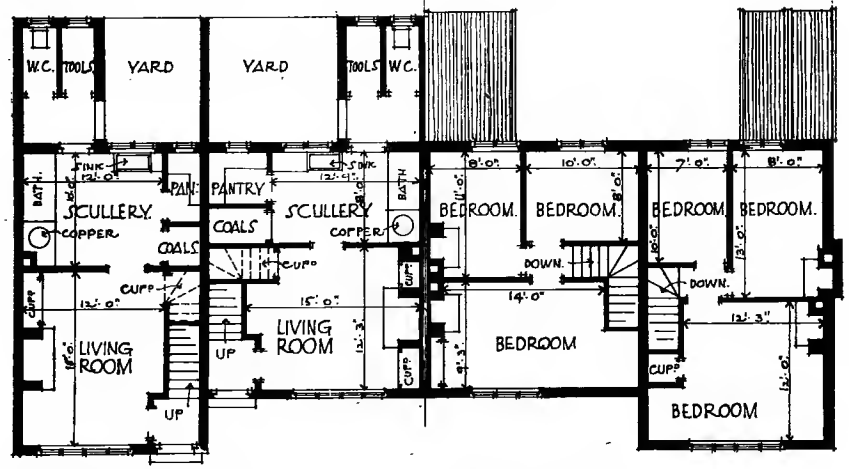
COST £200 PER COTTAGE.

BRICK WALLS FINISHED WITH ROUGHCAST.
ROOFING OF HARTSHILL TILES.
SCULLERY FLOORS, WOOLISCROFT'S FAVIORS
OTHER FLOORS 1" P.T & G. REDWOOD



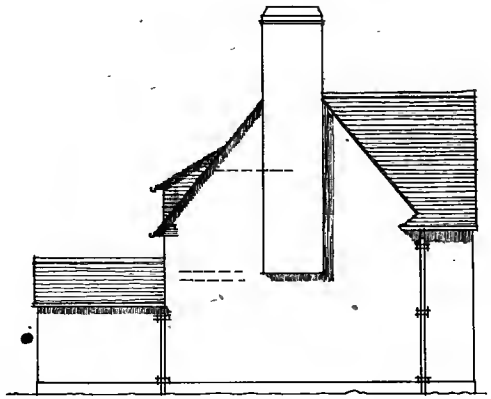
FRONT ELEVATION :

BACK ELEVATION :

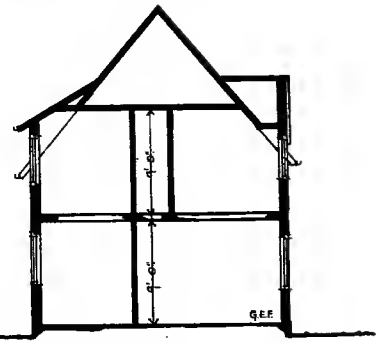


GROUND FLOOR PLAN :

FIRST FLOOR PLAN :



END ELEVATION :



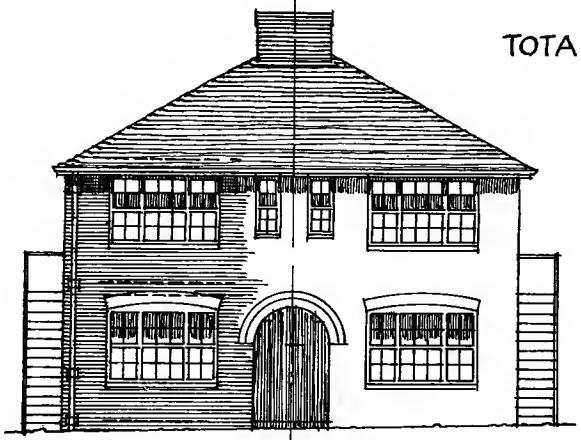
SECTION :

R.UNTON & BARRY AA.R.I.B.A.
ARCHITECTS :

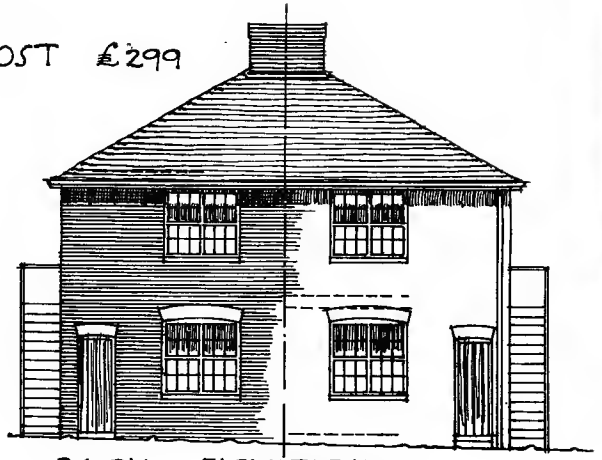
BLOCK OF FOUR FLATS. YEOVIL. SOMERSET :

11" HOLLOW WALLS POINTED WHITE.
ROOFING OF SLATES
IRON STAIRCASES OUTSIDE.

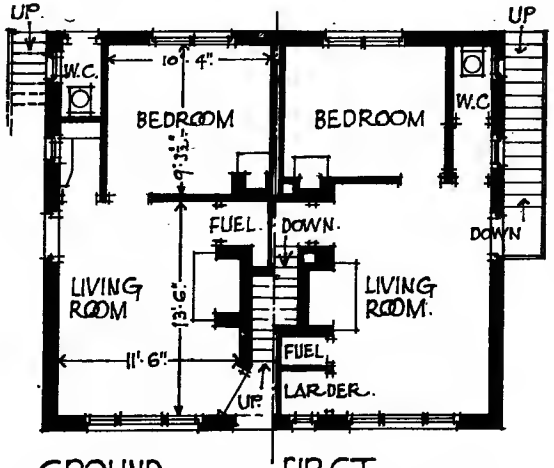
TOTAL COST £299



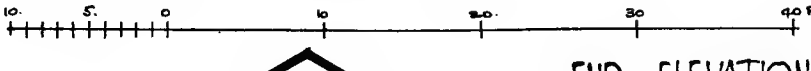
FRONT ELEVATION :

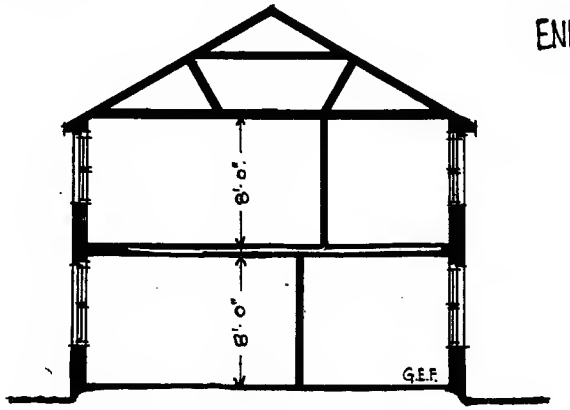


BACK ELEVATION :



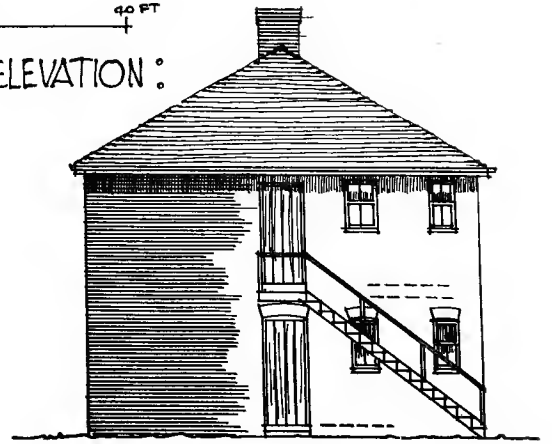
GROUND FLOOR PLAN: FIRST FLOOR PLAN:





SECTION :

END ELEVATION :

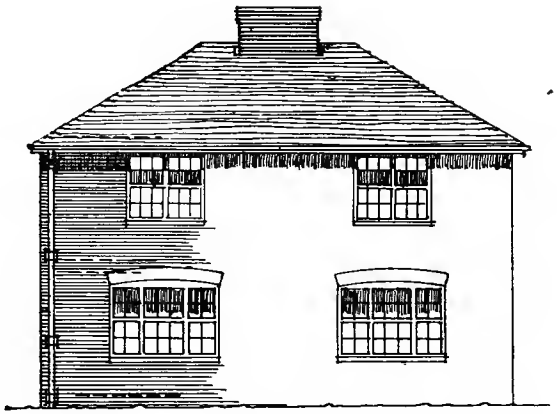


J. PETTER & P.F WARREN A.R.I.B.A.
ARCHITECTS : YEOVIL.

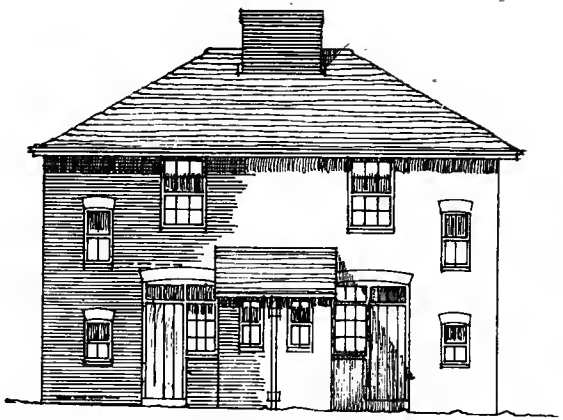
PAIR OF COTTAGES AT YEOVIL SOMERSET

COST £120 EACH

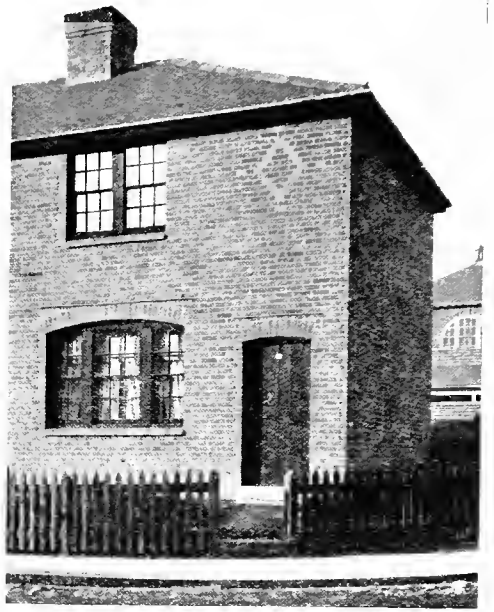
11" HOLLOW WALLS POINTED WHITE
ROOFING OF SLATES :

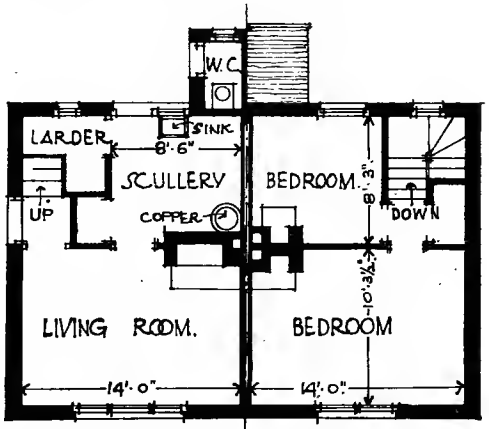


FRONT ELEVATION :



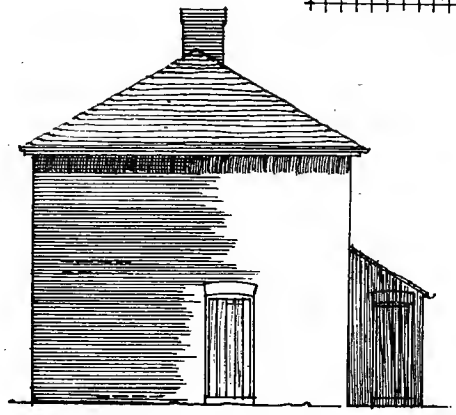
BACK ELEVATION :



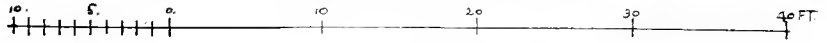


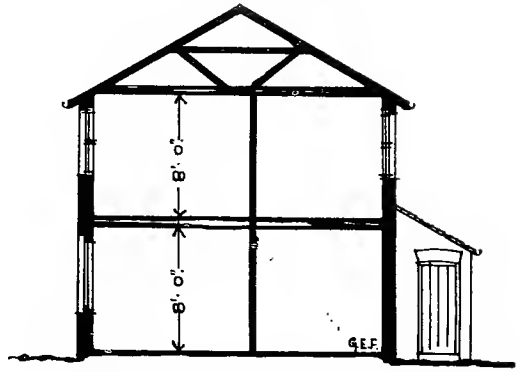
GROUND FLOOR PLAN :

FIRST FLOOR PLAN :



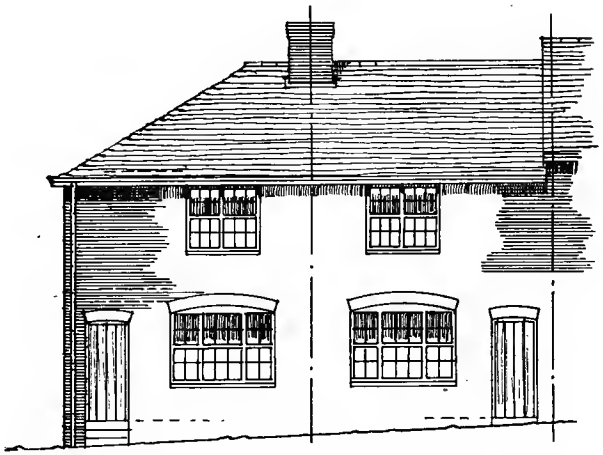
END ELEVATION :





J. PETTER & P.F. WARREN. A.R.I.B.A.,
ARCHITECTS : YEOVIL.

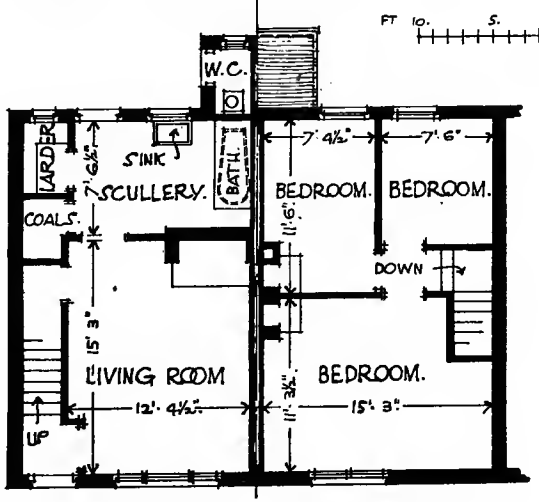
ROW OF SIX COTTAGES BOROUGH OF YEOVIL.



FRONT ELEVATION :

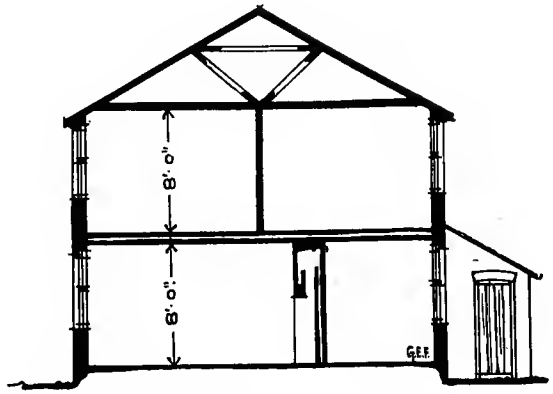
BACK ELEVATION.

COST £136·16·8 EACH
11" HOLLOW WALLS POINTED WHITE
ROOFING OF SLATES.
BATH PROVIDED WITH FLAP
TO FORM TABLE.

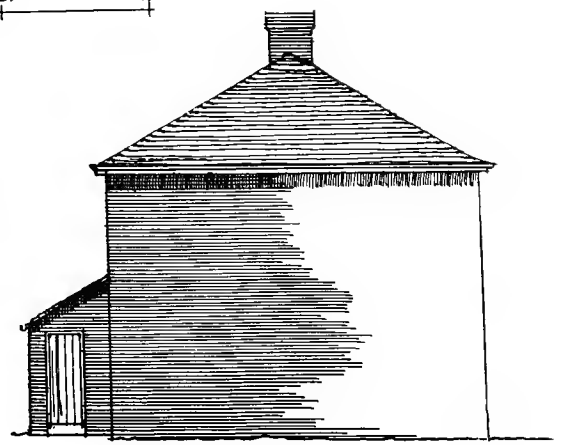


GROUND FLOOR PLAN :

FIRST FLOOR PLAN :



SECTION :

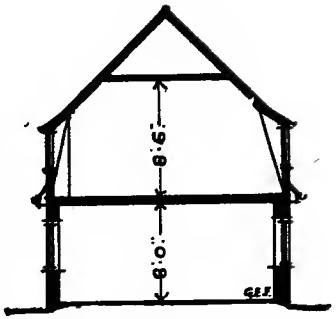


END ELEVATION :

J PETTER & P.F. WARREN A.R.I.B.A.
ARCHITECTS : YEOVIL.

FIVE COTTAGES AT A SEA-SIDE VILLAGE CO. ANTRIM :

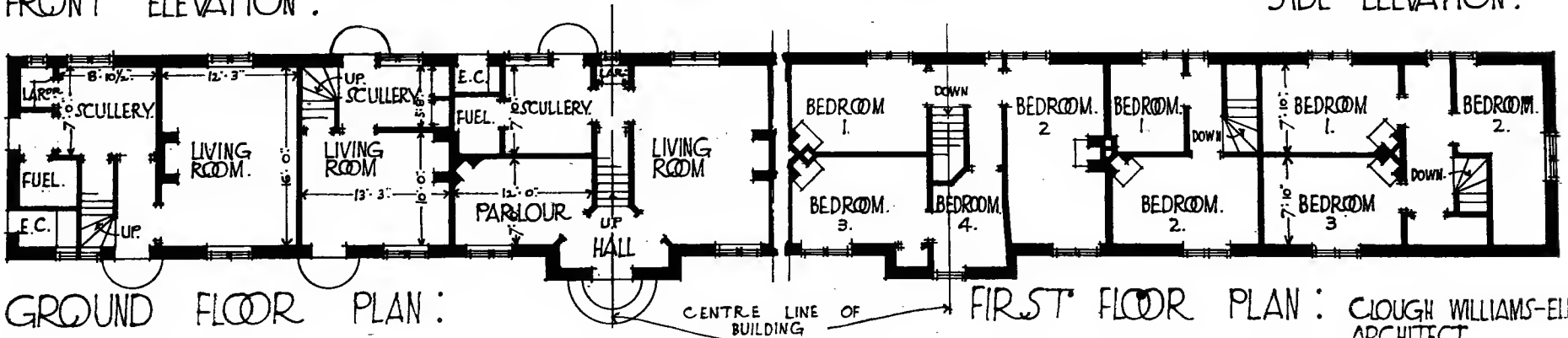
TOTAL COST £980. (£196 PER COTTAGE)
11" HOLLOW BRICK WALLS CEMENT HARLED AND WHITEWASHED
ROOFING OF SMALL ROUGH PORTMADOC GREY SLATES



SECTION :

FRONT ELEVATION :

SIDE ELEVATION :



GROUND FLOOR PLAN :

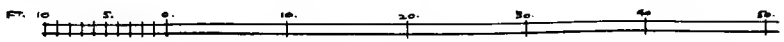
FIRST FLOOR PLAN :

CLOUGH WILLIAMS-ELLIS. ARCHITECT

WORKMEN'S DWELLINGS
CLINE ROAD.
GUILDFORD :

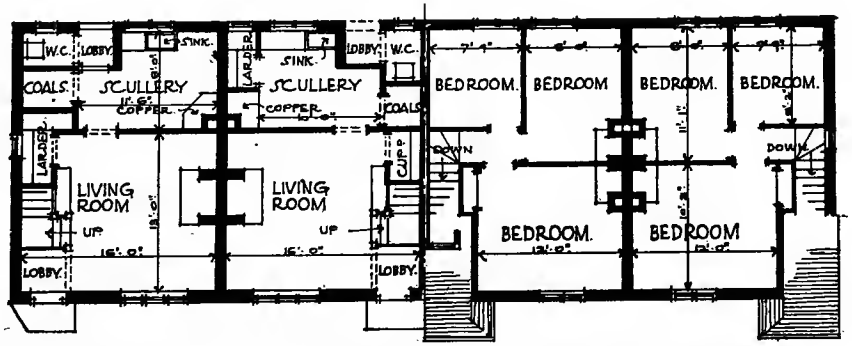
COST £175 PER COTTAGE.

WALLS OF PURPLE STOCKS TO FIRST-FLOOR LEVEL.
CREAM COLOURED STUCCO ABOVE
ROOFING OF SAND-FACED PLAIN TILES.

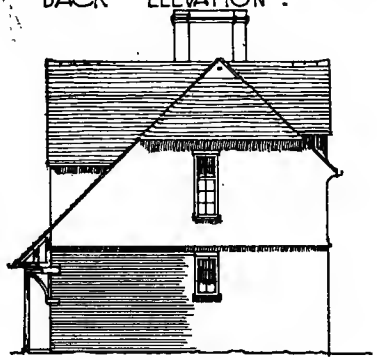


FRONT ELEVATION :

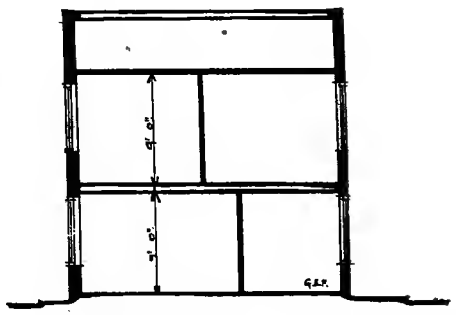
BACK ELEVATION :



GROUND FLOOR PLAN : FIRST FLOOR PLAN :



SIDE ELEVATION :



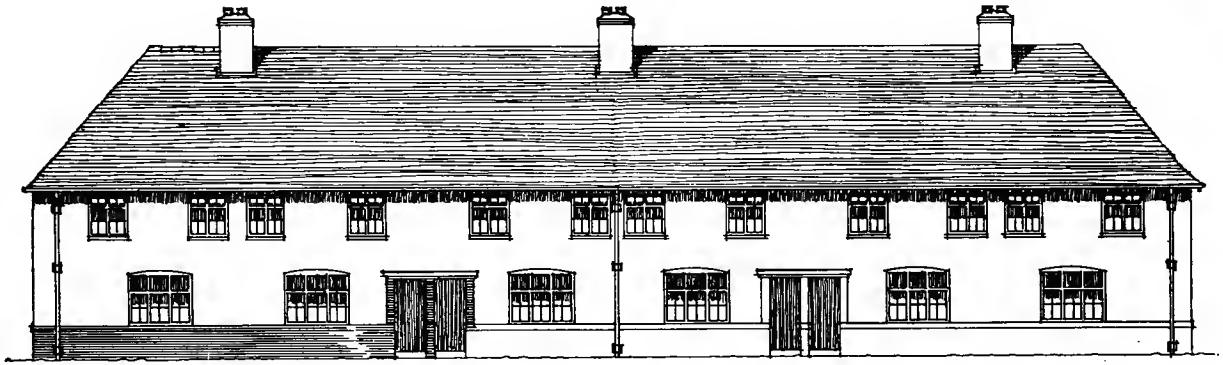
SECTION :

T. J. CAPP.
ARCHITECT.

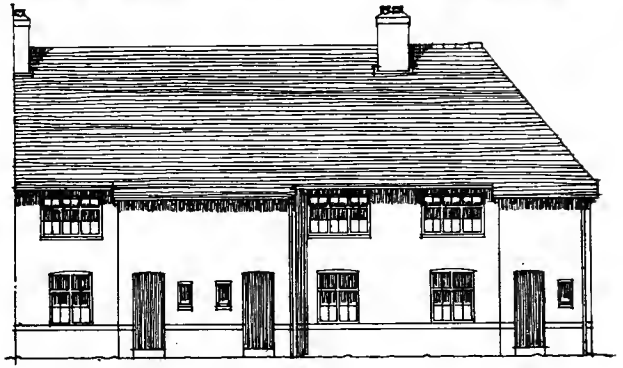
BLOCK OF SIX COTTAGES. COMMON VIEW LETCHWORTH :

COST £150 – £160 PER COTTAGE.

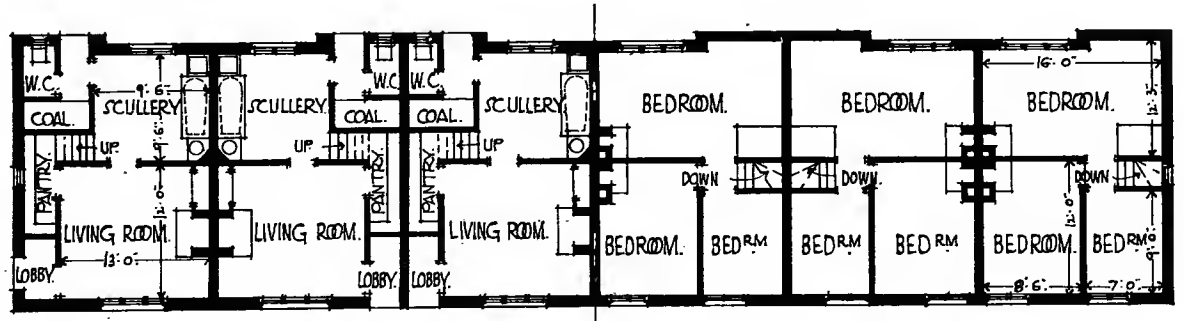
THE WALLS GENERALLY ARE OF FLETTON BRICKS, COVERED WITH ROUGHCAST. WITH A PLINTH OF LOCAL RED SAND BRICKS : ROOFING OF SAND-FACED RED TILES :



FRONT ELEVATION :

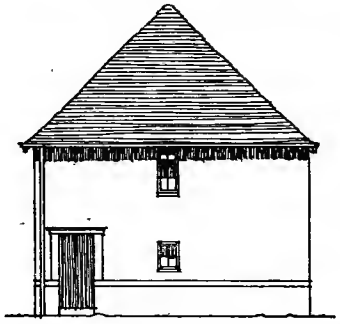


PART BACK ELEVATION :

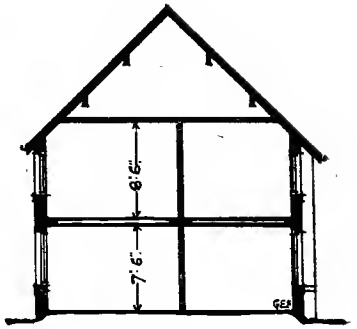


GROUND FLOOR PLAN :

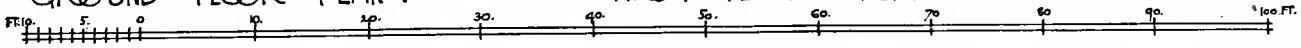
FIRST FLOOR PLAN :



END ELEVATION :



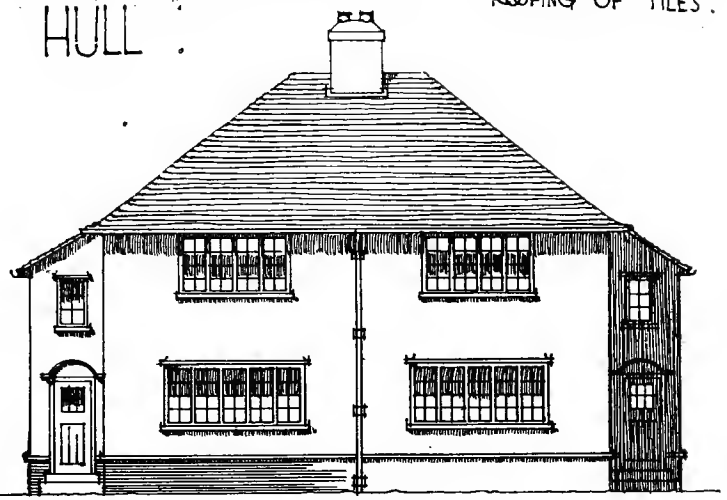
SECTION :



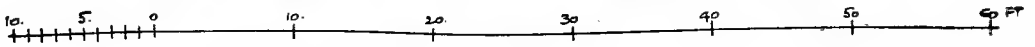
H.L. PATERSON. ARCHITECT.

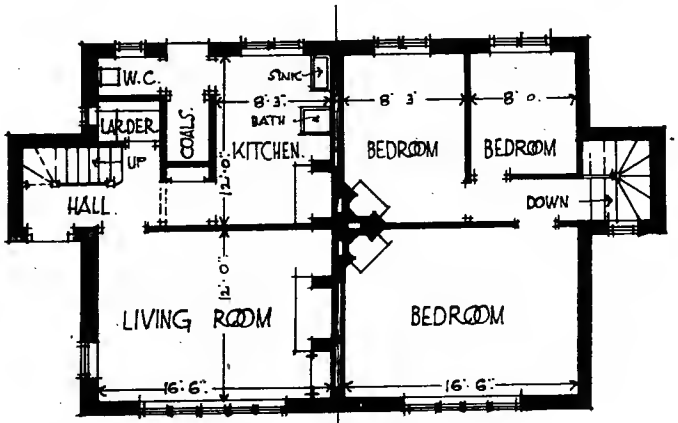
PAIR OF COTTAGES AT HULL:

COST £ 200 PER COTTAGE.
WALLING FINISHED WITH ROUGHCAST
ROOFING OF TILES.

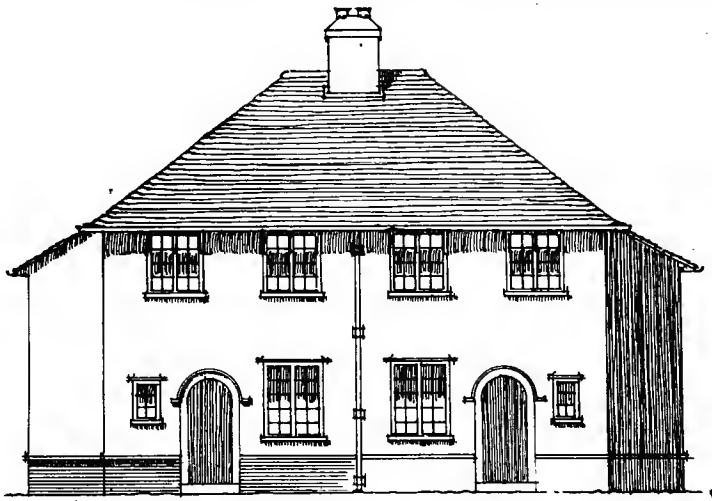


FRONT ELEVATION:

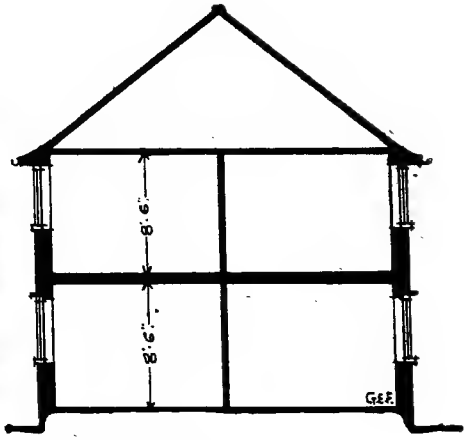




GROUND FLOOR PLAN: FIRST FLOOR PLAN:



BACK ELEVATION:



SECTION:

CHAPMAN AND JENKINSON. ARCHITECTS:

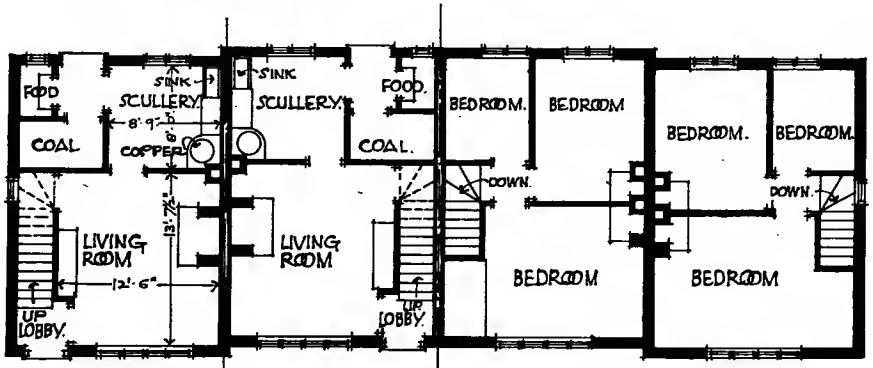
MARKET BOSWORTH R. D. C.
FOUR COTTAGES AT MARKFIELD. LEICESTERSHIRE :

COST £ 156·5·0 PER COTTAGE
RED LOCAL FACING BRICKS & ROUGH CAST FOR WALLS.
ROOFING OF BLUE BANGOR SLATES

10. 5. 0 10 20 30. 40 50 FT.

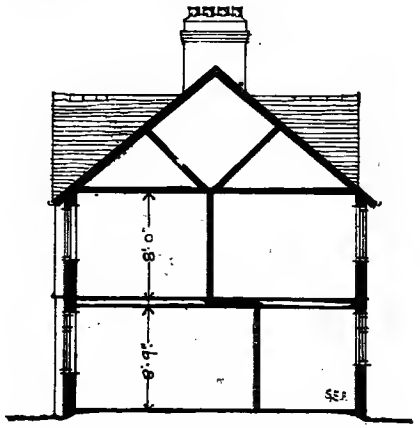
FRONT ELEVATION :

BACK ELEVATION :

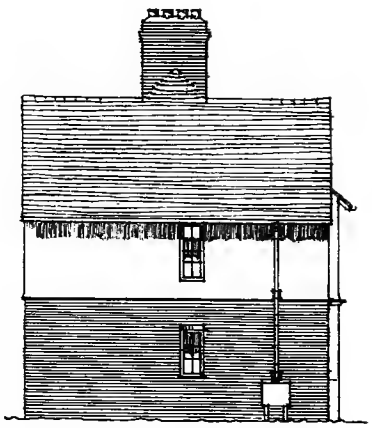


GROUND FLOOR PLAN :

FIRST FLOOR PLAN :



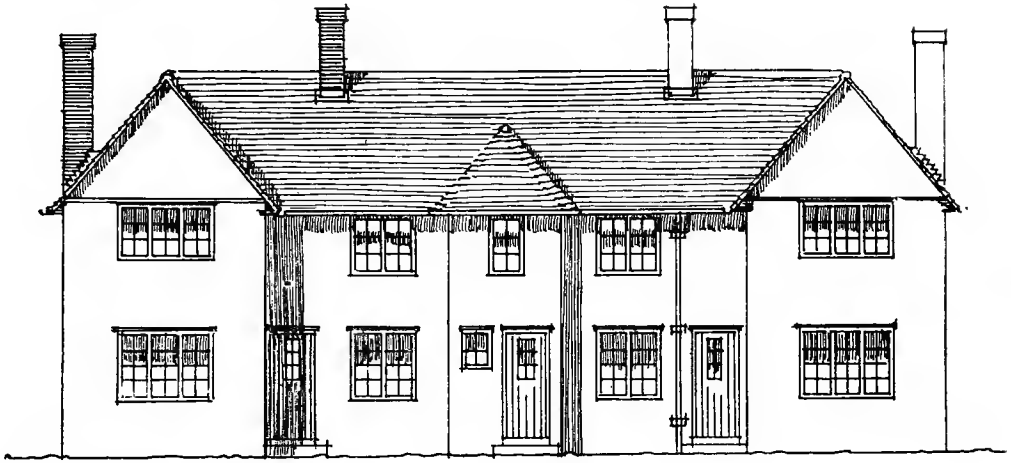
SECTION :



END ELEVATION :

E.C.P. MONSON F.R.I.B.A., F.S.I.
ARCHITECT

BLOCK OF THREE COTTAGES BURY ROAD. THETFORD

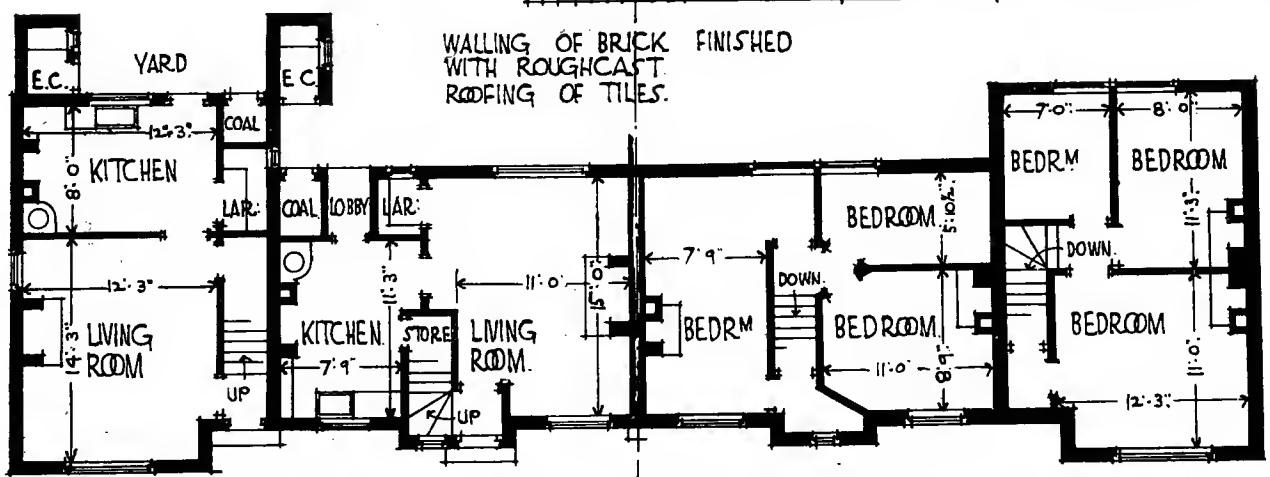


FRONT ELEVATION.

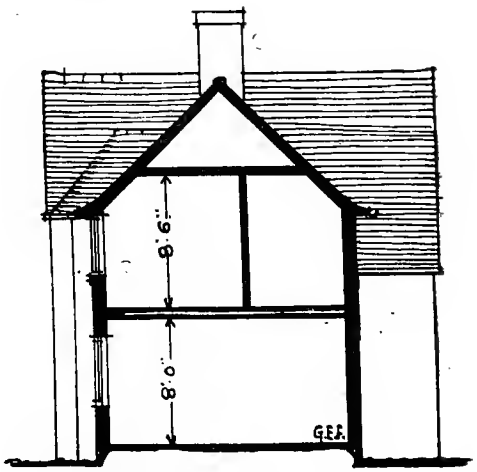
COST £130 PER COTTAGE

FT 10 5 0 10 20 30 40 50 FT

WALLING OF BRICK FINISHED WITH ROUGHCAST. ROOFING OF TILES.



PART GROUND FLOOR PLAN: PART FIRST FLOOR PLAN:



SECTION:

STANLEY J. WEARING. A.R.I.B.A. ARCHITECT

PAIR OF COTTAGES AT HIGHCLERE BERKS :

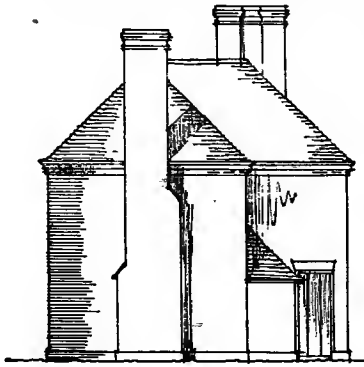
TOTAL COST OF COTTAGES £225 EACH

11" HOLLOW WALLS WERE EMPLOYED

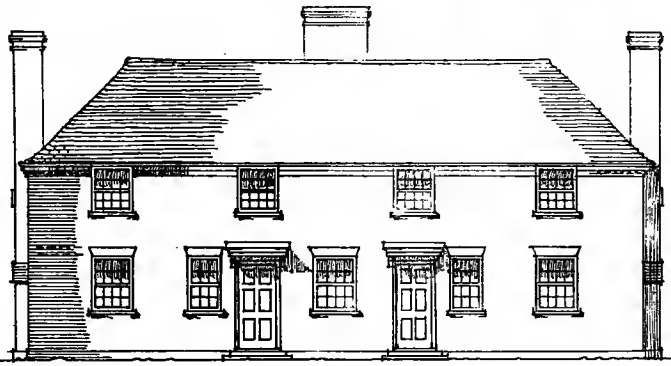
ROOFING IS OF OLD HAND MADE TILES

GREY BURNED KILN BRICKS USED FOR THE GENERAL WALLING THE QUOINS AND DIAMOND WORK BEING IN RED BRICK

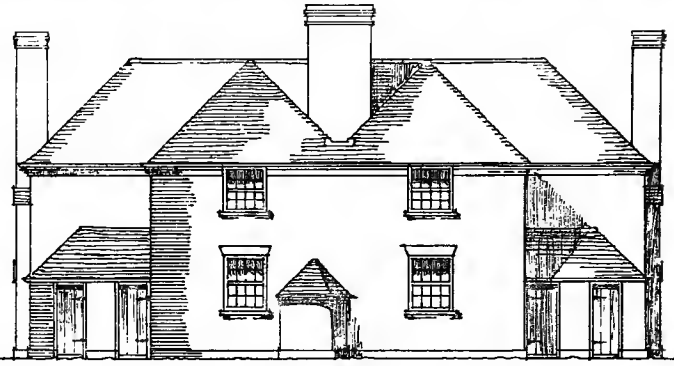
SASH FRAMES FLUSH WITH OUTER FACE OF WALL WITH REVEALS BEHIND



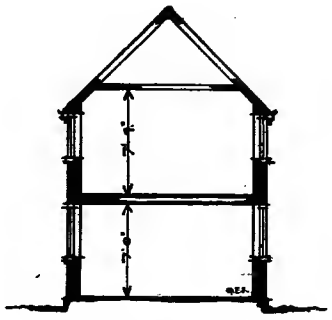
WEST ELEVATION :



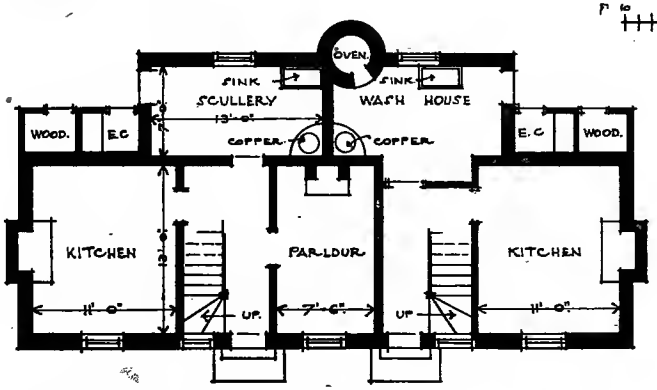
SOUTH ELEVATION



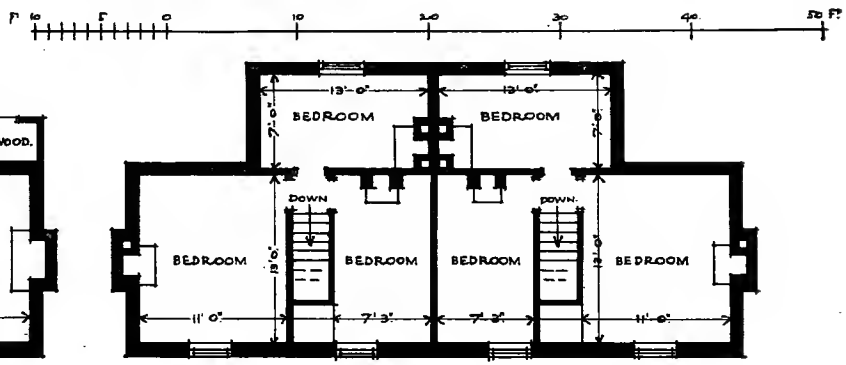
NORTH ELEVATION :



SECTION :



GROUND FLOOR PLAN :



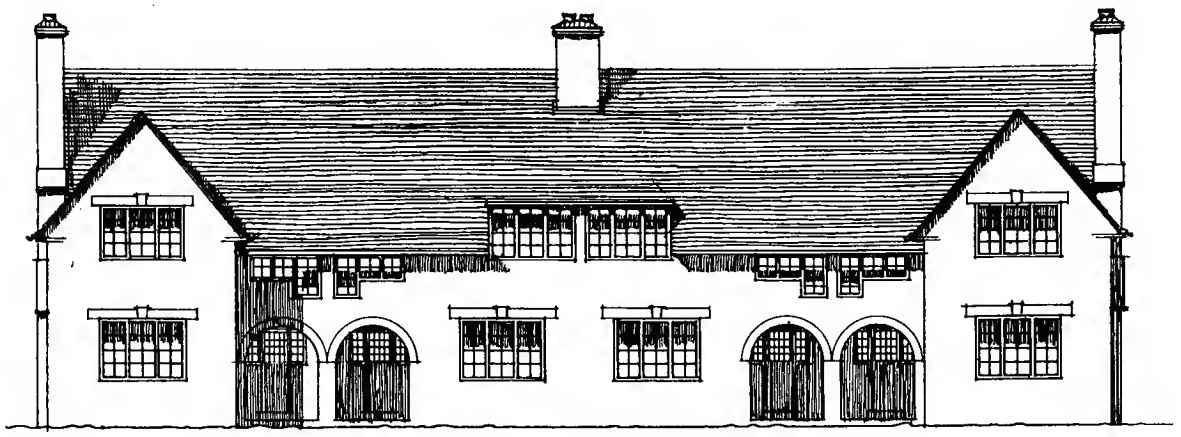
FIRST FLOOR PLAN :

FRANCIS BACON
ARCHITECT :

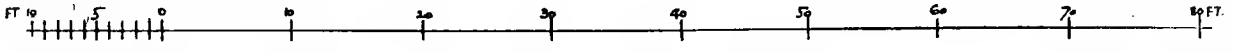
FFORESTFACH GARDEN VILLAGE : BLOCK OF FOUR COTTAGES.

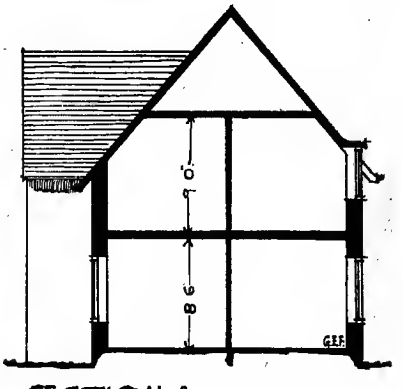
COST ABOUT £212 PER COTTAGE.

18" EXTERNAL WALLS OF LOCAL STONE
ROOFING OF TINTAGEL SLATES

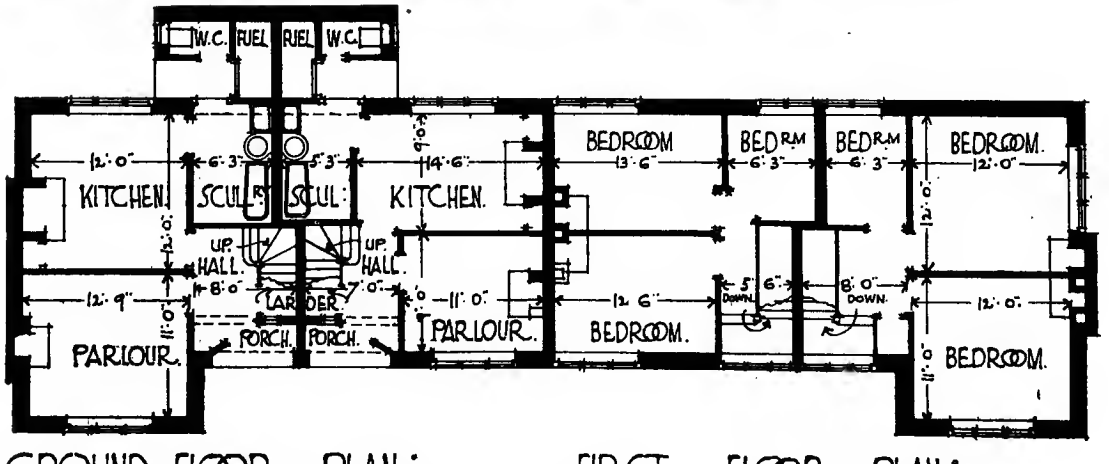


FRONT ELEVATION :





SECTION :



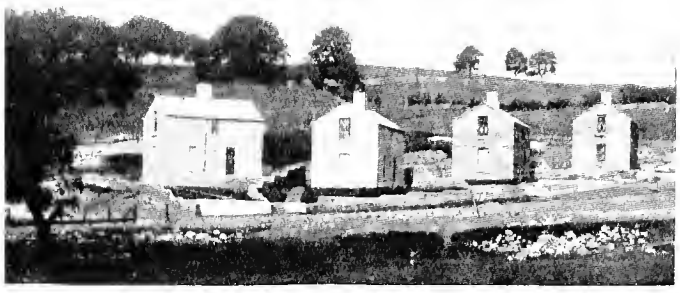
GROUND FLOOR PLAN :

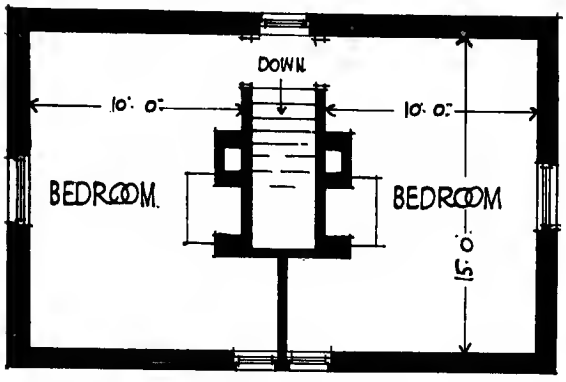
FIRST FLOOR PLAN :

G.L. PEPLER. F.S.I. & E.G. ALLEN. F.R.I.B.A.
ARCHITECTS :

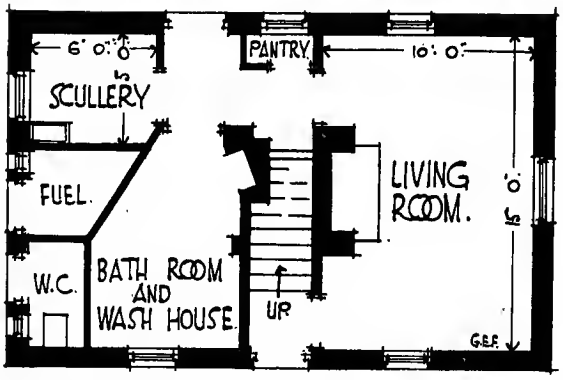
CONCRETE COTTAGES MERTHYR TYDFIL.

COST ABOUT £195 PER COTTAGE. INCLUDING ROADS AND SITE VALUE
FLOORS. WALLS. STAIRS. CEILINGS AND ROOFS OF CONCRETE.
WALLS REINFORCED WITH KAHN BARS. SHEATHED WITH "HY-RIB".





FIRST FLOOR PLAN.

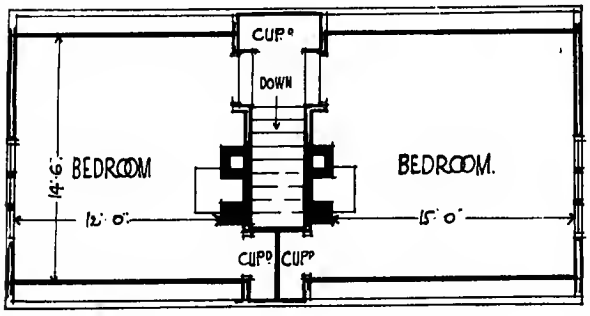


GROUND FLOOR PLAN.

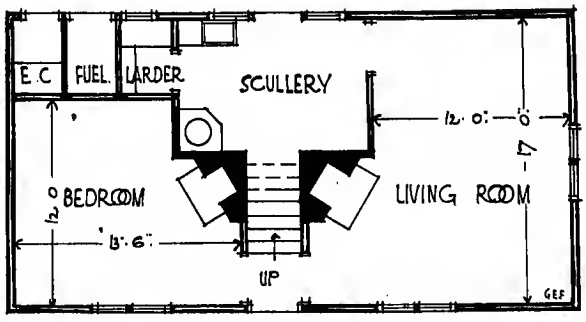
F. THACKERAY
BOROUGH ARCHITECT.

COTTAGE AT MERROW COMMON NR. GUILDFORD

COST ABOUT £150
WEATHER BOARDING & FRAMING OF DEAL
PATENT ROMAN TILE ROOFING

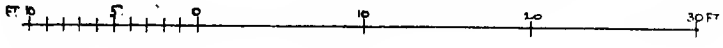


FIRST FLOOR PLAN.

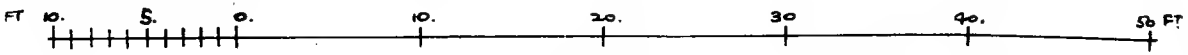


GROUND FLOOR PLAN.

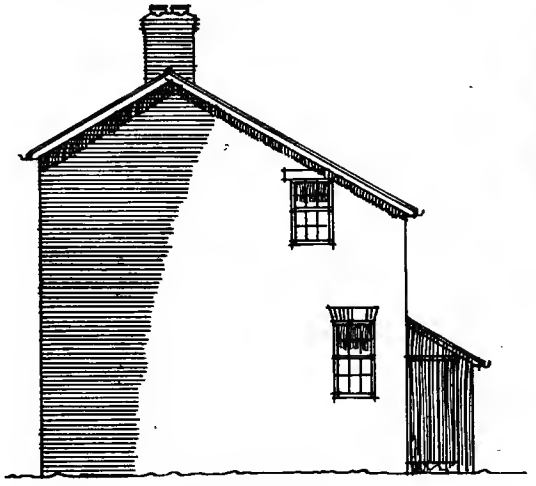
BUILT FOR
J ST LOE STRACHEY Esq.



COTTAGES AT WOODSTOCK OXON :



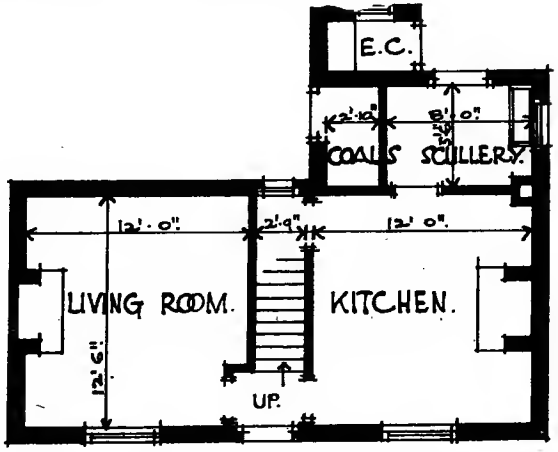
FRONT ELEVATION :



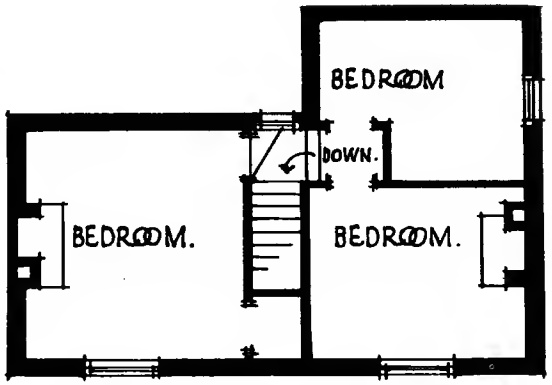
SIDE ELEVATION:

COST £195. PER COTTAGE INCLUDING DRAINAGE & WATER SUPPLY.

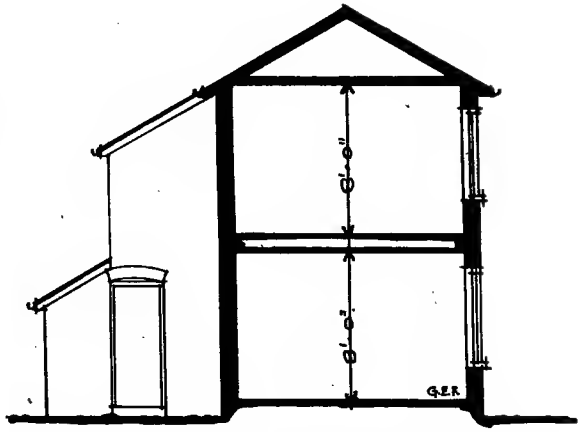
WALLS IN RED SANDSTOCKS FROM CUMNOR. BERKS.
ARCHES RUBBED & GAUGED WITH TWO COURSES TILE OVER.
ROOFING OF BANGOR SLATES.
ALL FLOORS OF 1" DEAL BATTENS EXCEPT SCULLERY Etc WHICH ARE OF 3" RED QUARRIES.



GROUND FLOOR PLAN :



FIRST FLOOR PLAN :



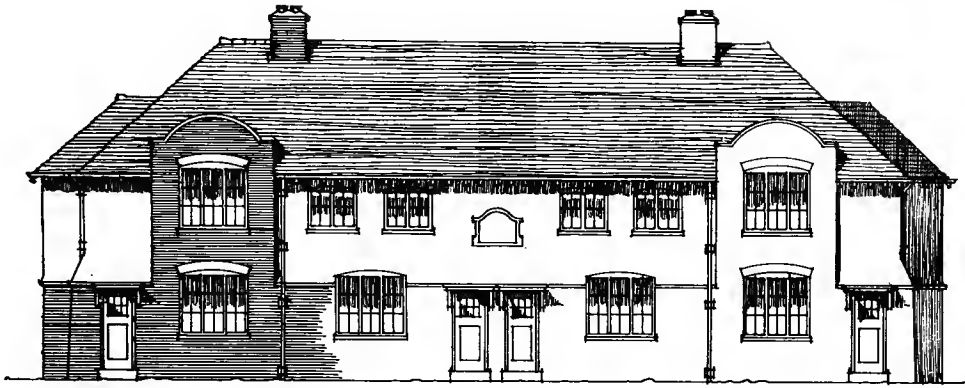
SECTION :

FRANK MOUNTAIN. M.S.A.
ARCHITECT :

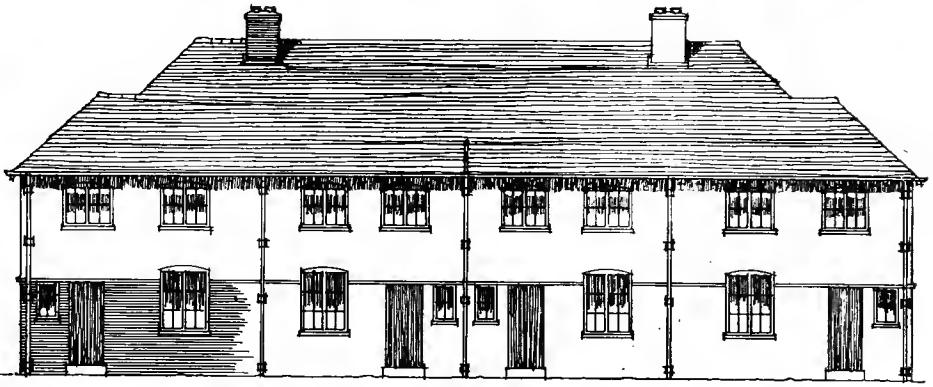
BLOCK OF FOUR COTTAGES.
PRIMROSE AVENUE.
WINCOBANK. SHEFFIELD.

COST £200 PER COTTAGE.

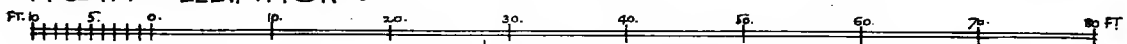
ALL EXTERNAL WALLS ARE 11" CAVITY.
LOCAL BRICKS WERE USED WITH RED PRESSED FACINGS AND ROUGHCAST.
ROOFING OF TILES.

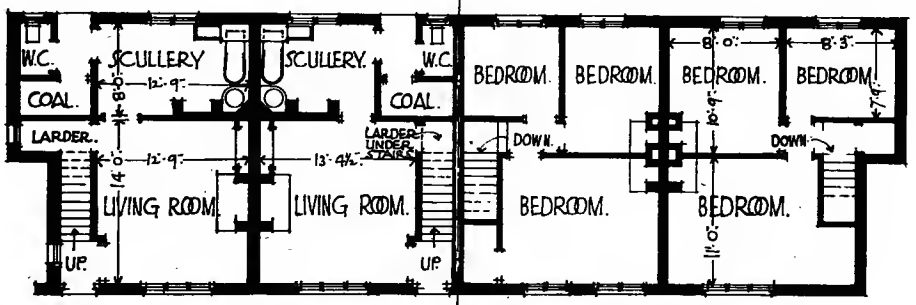


FRONT ELEVATION:

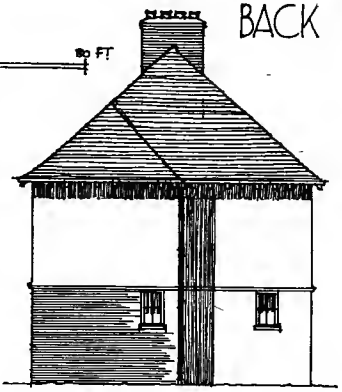


BACK ELEVATION:

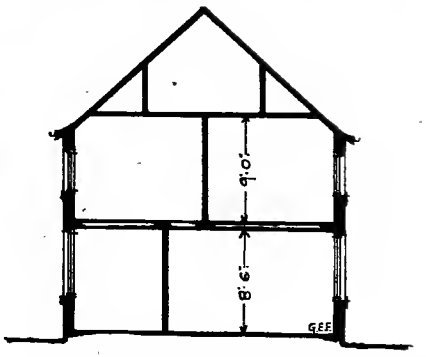




GROUND FLOOR PLAN: FIRST FLOOR PLAN:

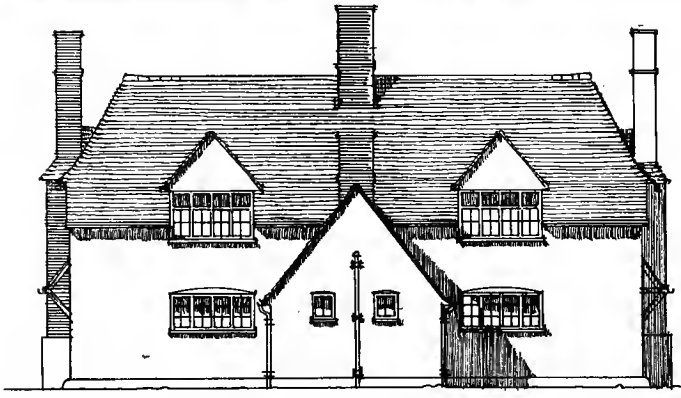


END ELEVATION:



SECTION:

H. L. PATERSON ARIBA.
ARCHITECT:



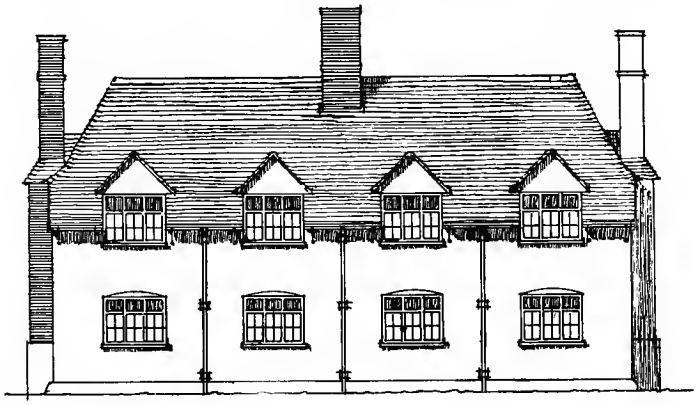
BACK ELEVATION :

PAIR OF COTTAGES AT OVING. Nr AYLESBURY.

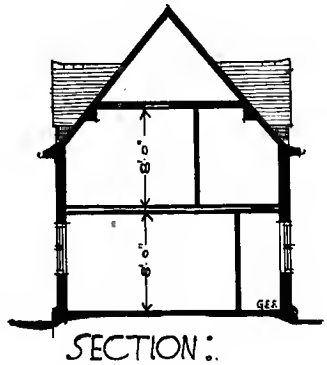
COST £285 PER COTTAGE

MAIN WALLS BRICK FINISHED WITH ROUGHCAST.
FACINGS OF SAND STOCKS
ROOFING OF LOCAL SAND FACED TILES.
WINDOWS AND DOORS. RED DEAL PAINTED.

FT. 10 5 0 10 20 30 40 FT.

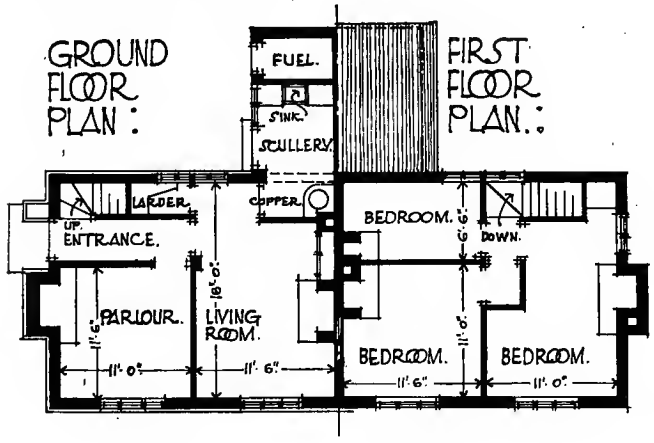


FRONT ELEVATION :



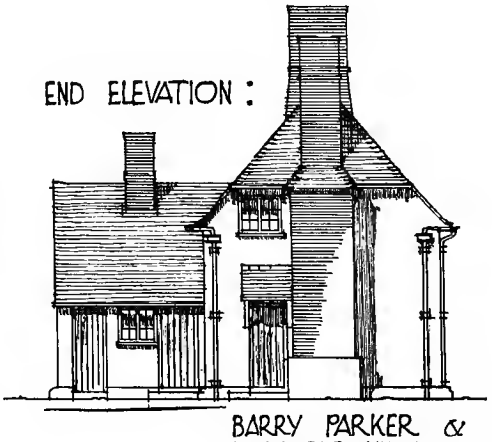
SECTION :

GROUND FLOOR PLAN :

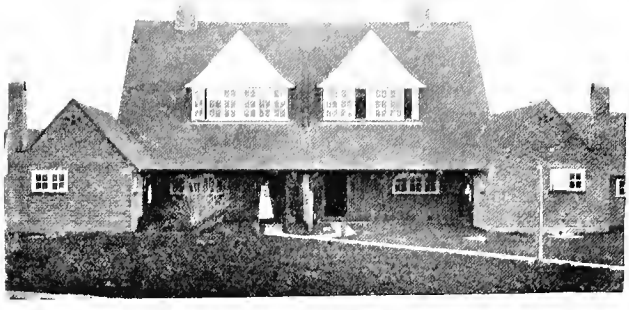


FIRST FLOOR PLAN. :

END ELEVATION :



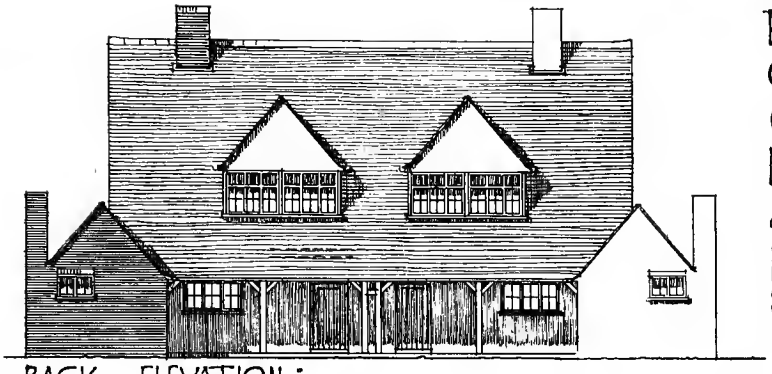
BARRY PARKER & RAYMOND UNWIN. FRIBA ARCHITECTS :



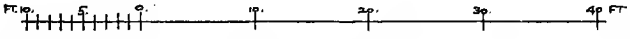
PAIR OF COTTAGES AT OVING. Nr. AYLESBURY. BUCKS :

COST £242. PER COTTAGE

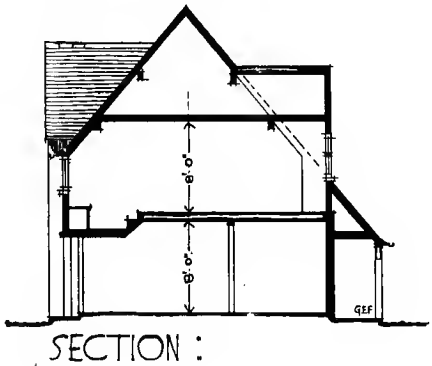
MAIN WALLS BRICK FINISHED WITH ROUGHCAST. FACINGS SAND STOCK AND ALSO THE OUTBUILDINGS.
WINDOWS AND DOORS OF RED DEAL PAINTED.



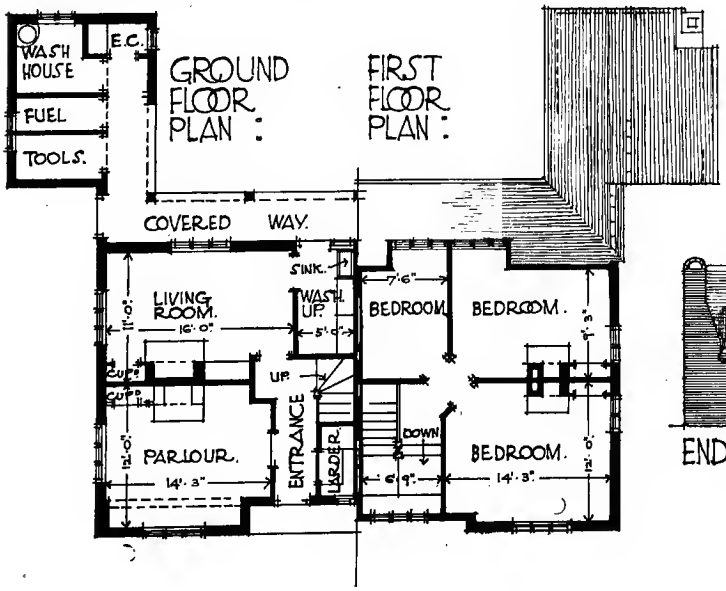
BACK ELEVATION :



FRONT ELEVATION :



SECTION :



GROUND FLOOR PLAN :

FIRST FLOOR PLAN :

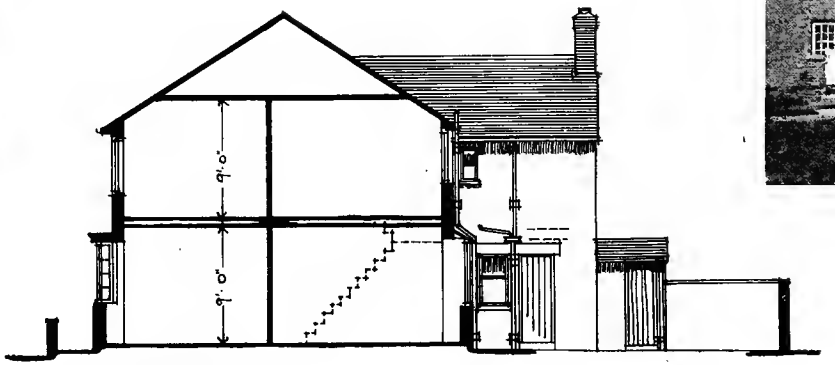
END ELEVATION :

BARRY PARKER. & RAYMOND UNWIN. FRIBA ARCHITECTS. :

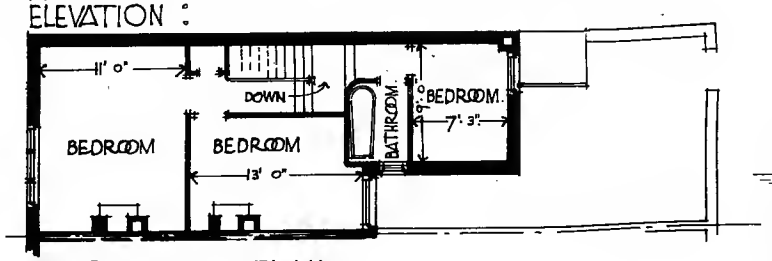
SEVEN COTTAGES OFF PROSPECT ROAD CADISHEAD

COST £199 PER COTTAGE
BRICK WALLS WITH RAVENHEAD RUSTIC BRICK FACINGS
ROOFING OF WELSH SLATES

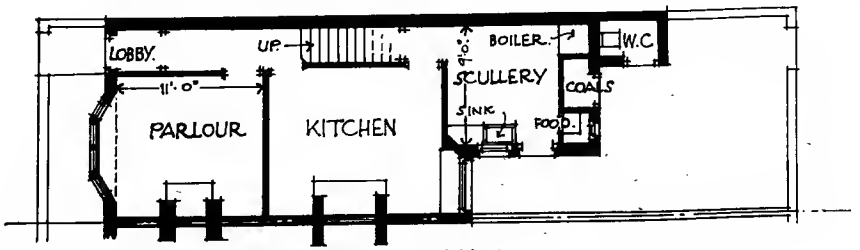
FRONT ELEVATION :



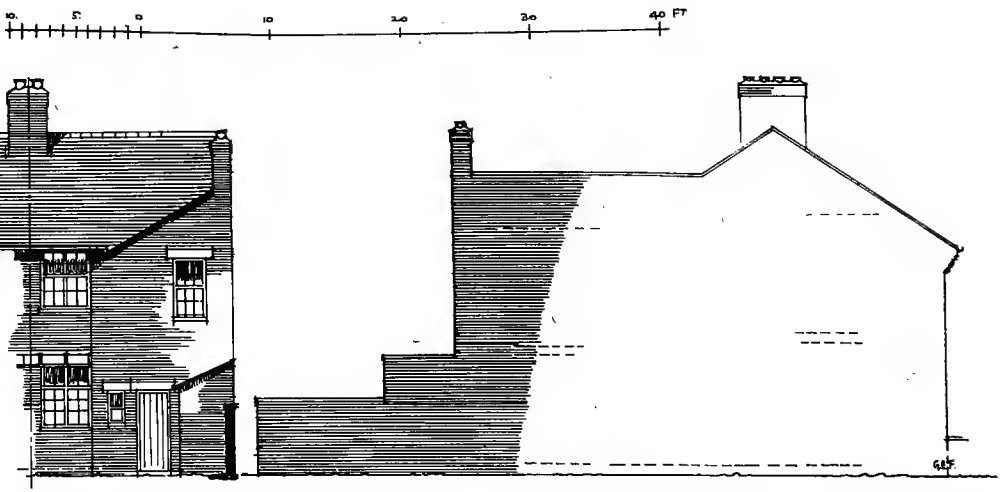
SECTION :



FIRST FLOOR PLAN :



GROUND FLOOR PLAN :



BACK ELEVATION :

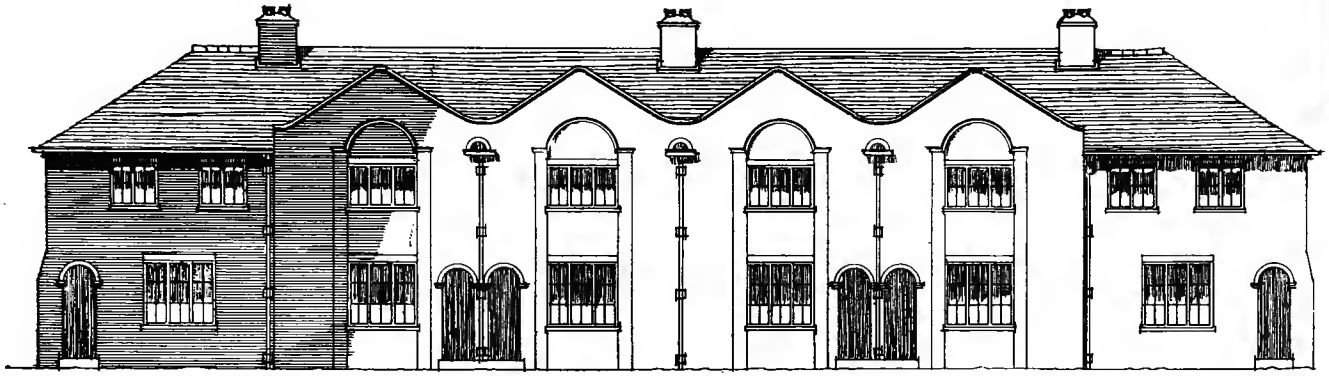
END ELEVATION :

G. HERBERT KAY A.M.I.C.E.
ARCHITECT :

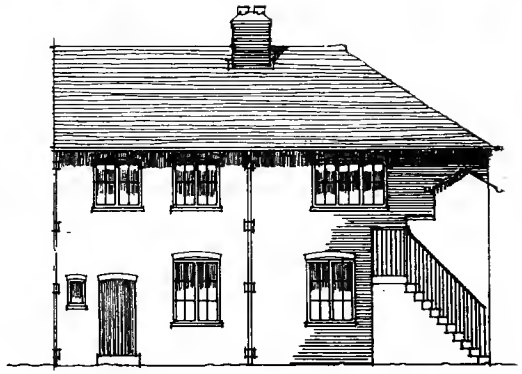
BLOCK OF FOUR FLATS AND FOUR COTTAGES. WINCOBANK AVENUE. SHEFFIELD :

COST ABOUT £1.000.

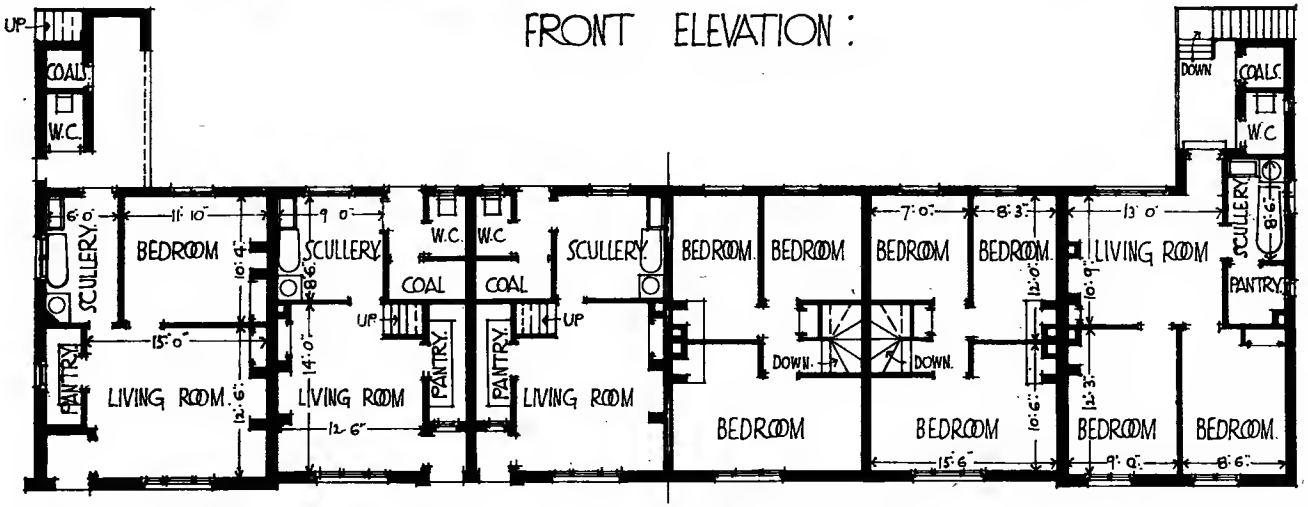
WALLS OF LOCAL RED BRICKS PICKED STOCKS BEING USED FOR ALL FACINGS.
ALL EXTERNAL WALLS ARE 11" CAVITY
ROOFING OF SLATES



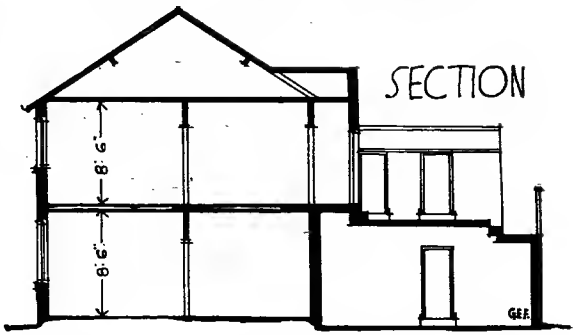
FRONT ELEVATION :



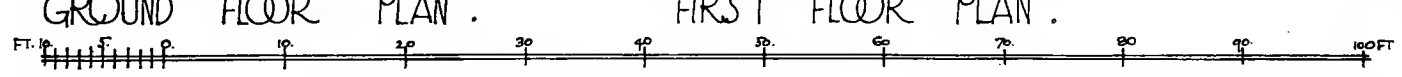
PART BACK ELEVATION :



GROUND FLOOR PLAN : FIRST FLOOR PLAN :

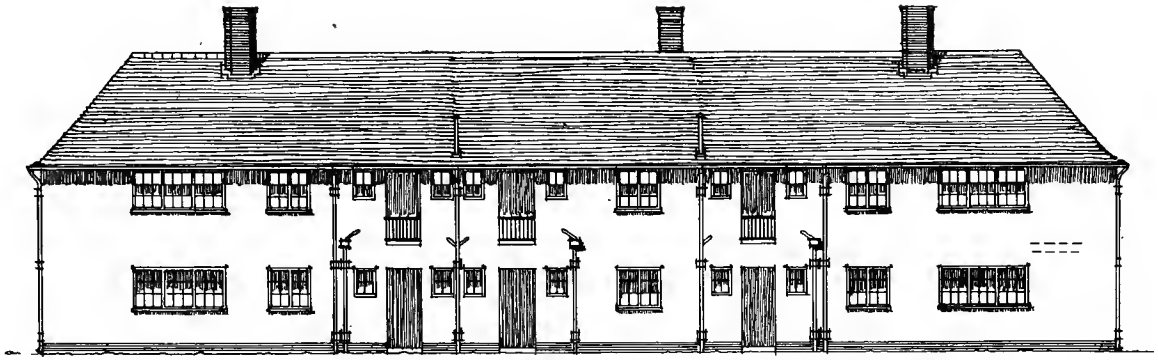


H. L. PATERSON A.R.I.B.A
ARCHITECT :

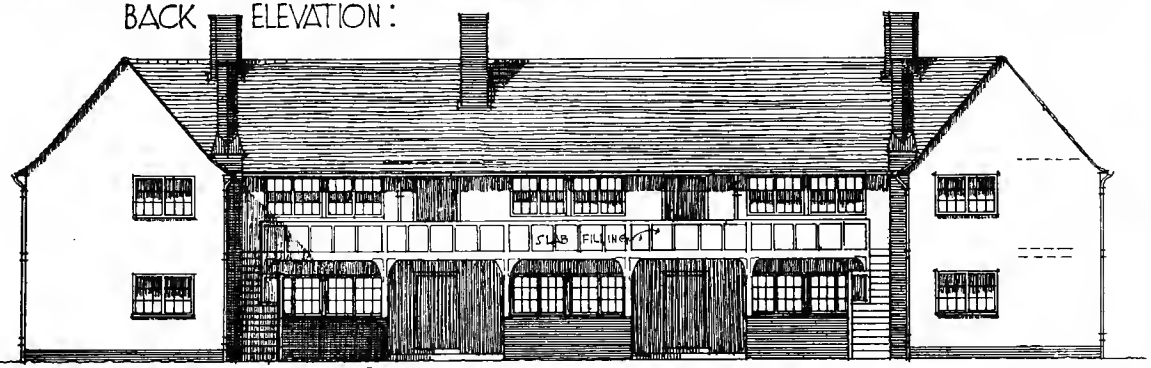


GROUP OF FOURTEEN SMALL FLATS AT BYFLEET. SURREY :

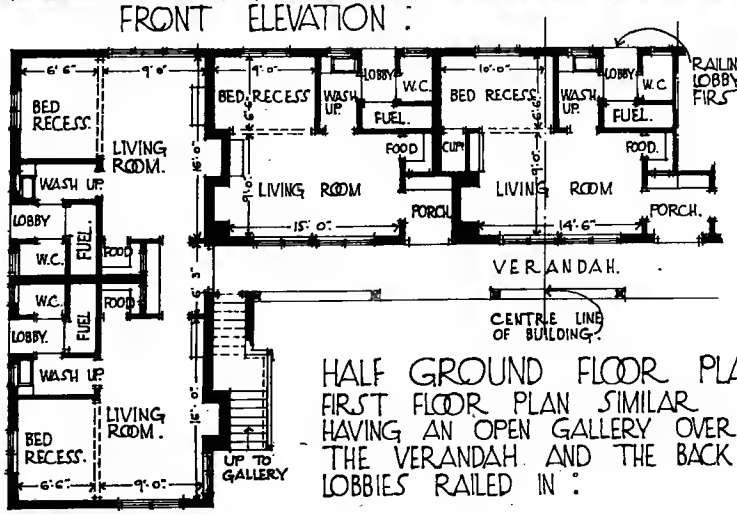
COST £1510 (£108 PER FLAT)
MAIN WALLS OF BRICK FINISHED WITH ROUGHCAST.
FACINGS OF MULTICOLOURED SANDSTOCKS.
WINDOWS AND DOORS RED DEAL PAINTED.
BALCONY FRAMING AND ALL THE OTHER OUTSIDE WOODWORK OF OAK



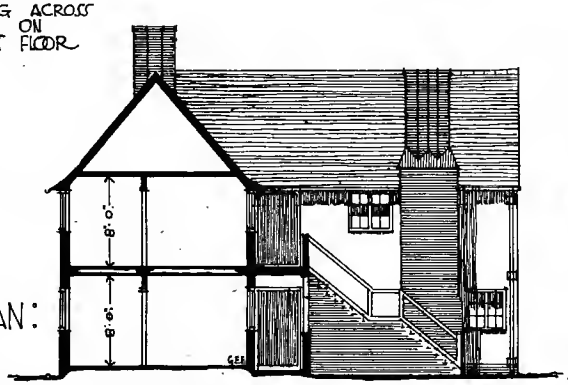
BACK ELEVATION :



FRONT ELEVATION :



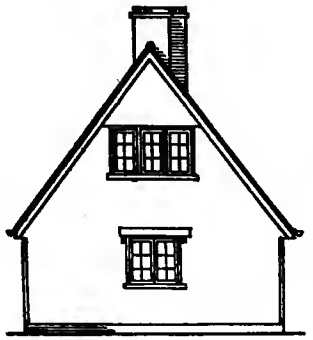
HALF GROUND FLOOR PLAN:
FIRST FLOOR PLAN SIMILAR HAVING AN OPEN GALLERY OVER THE VERANDAH AND THE BACK LOBBIES RAILED IN :



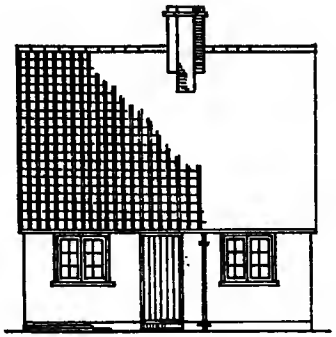
SECTION :

END ELEVATION :

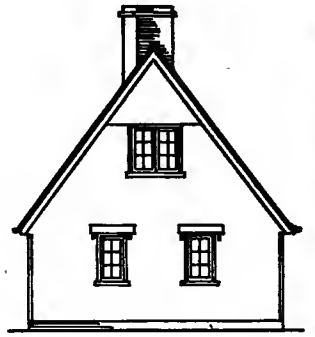
BARRY PARKER & RAYMOND UNWIN FRIBA ARCHITECTS :



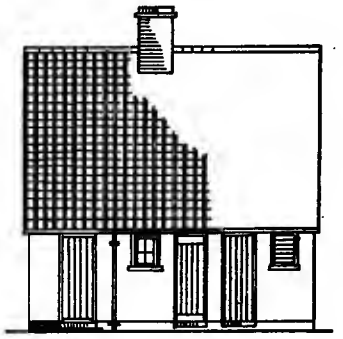
W ELEVATION.



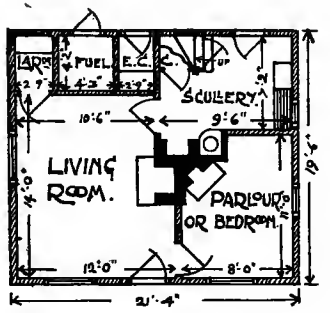
S. ELEVATION



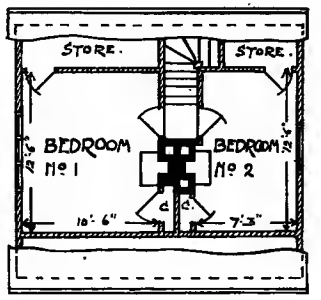
E ELEVATION.



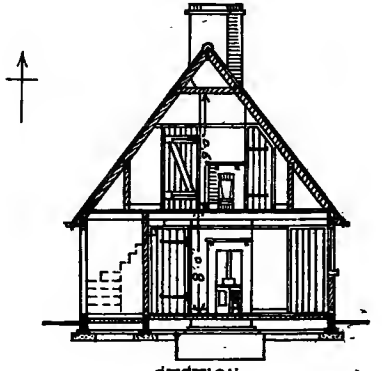
N. ELEVATION.



GROUND FLOOR PLAN.

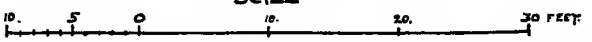


FIRST FLOOR PLAN.



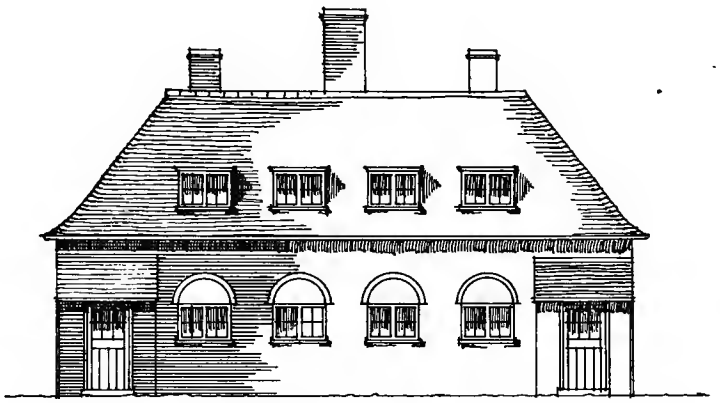
SECTION.

SCALE

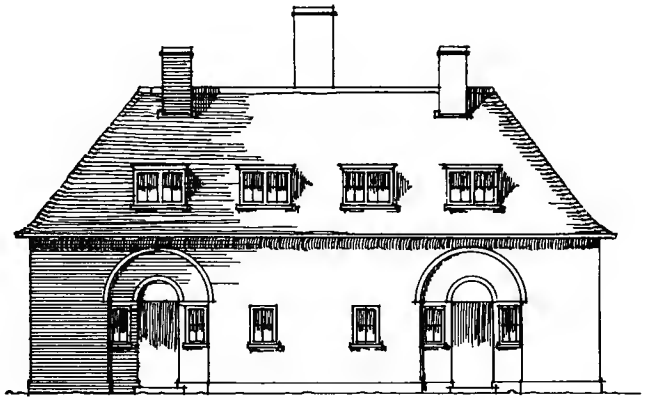


COTTAGE AT MERROW COMMON, SURREY. CONRAD B. WILLCOCKS, ARCHITECT.

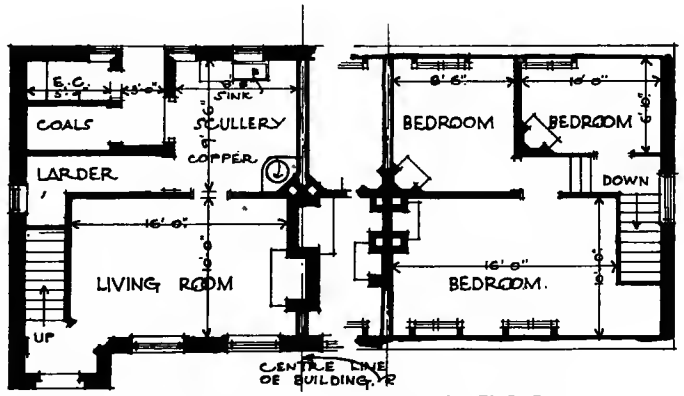
Contract price, £108, including drainage, water supply, picture rails, steam outlet to copper, etc. Foundations of brickwork in cement, walls of framing covered externally with felt and weatherboard stained with Solignum and plastered internally. Roof covered with tiles. All floors, except scullery, etc., boarded. If walls of brickwork—9 in. by 4½ in.—rough coated, cost would have been £120.



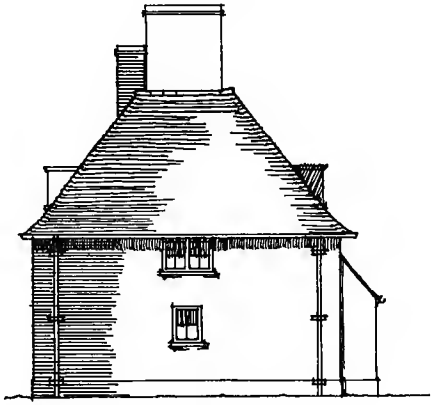
FRONT ELEVATION :



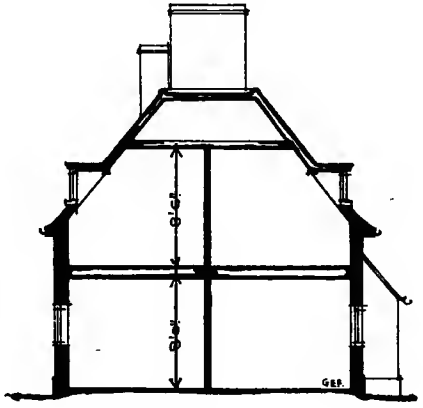
BACK ELEVATION :



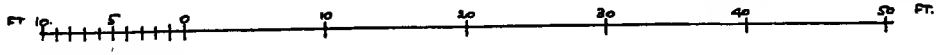
GROUND FLOOR PLAN : FIRST FLOOR PLAN :



SIDE ELEVATION :

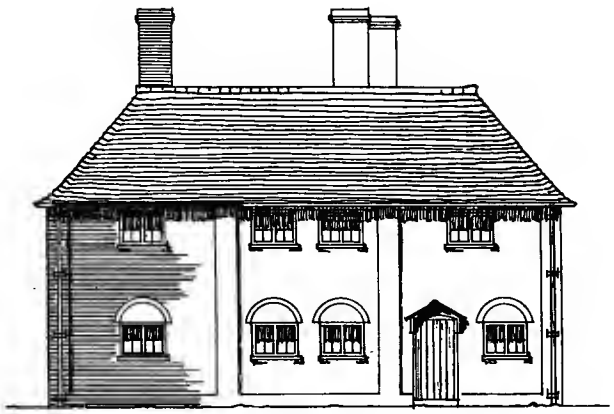


SECTION :

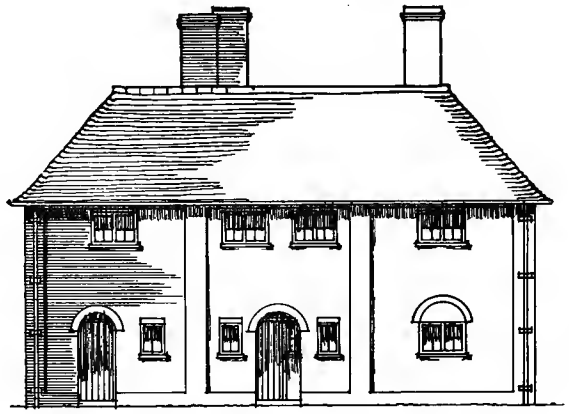


PAIR OF COTTAGES AT EAST CLANDON, SURREY. H. S. GOODHART-RENDEL, ARCHITECT.

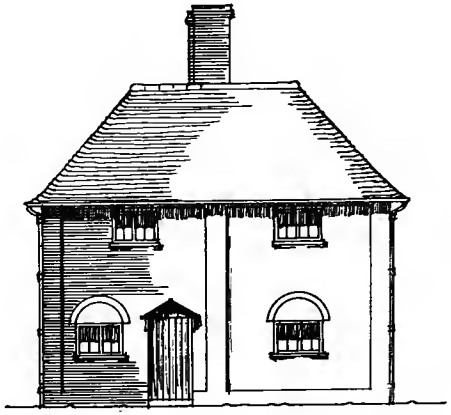
Cost £563. 11 in. hollow walls, of purple stocks; tiled roof.



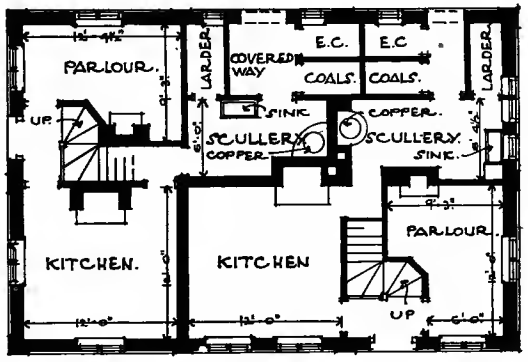
FRONT ELEVATION :



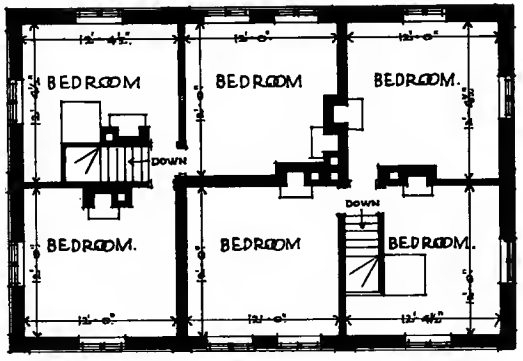
BACK ELEVATION :



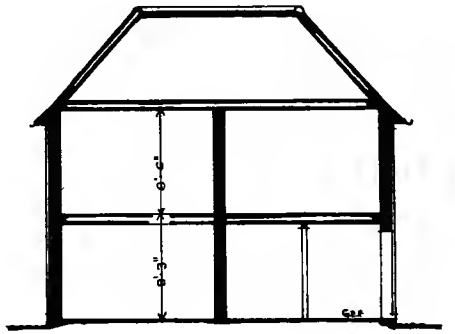
SIDE ELEVATION :



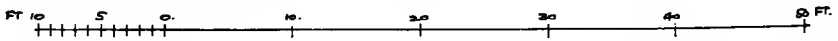
GROUND FLOOR PLAN :



FIRST FLOOR PLAN :



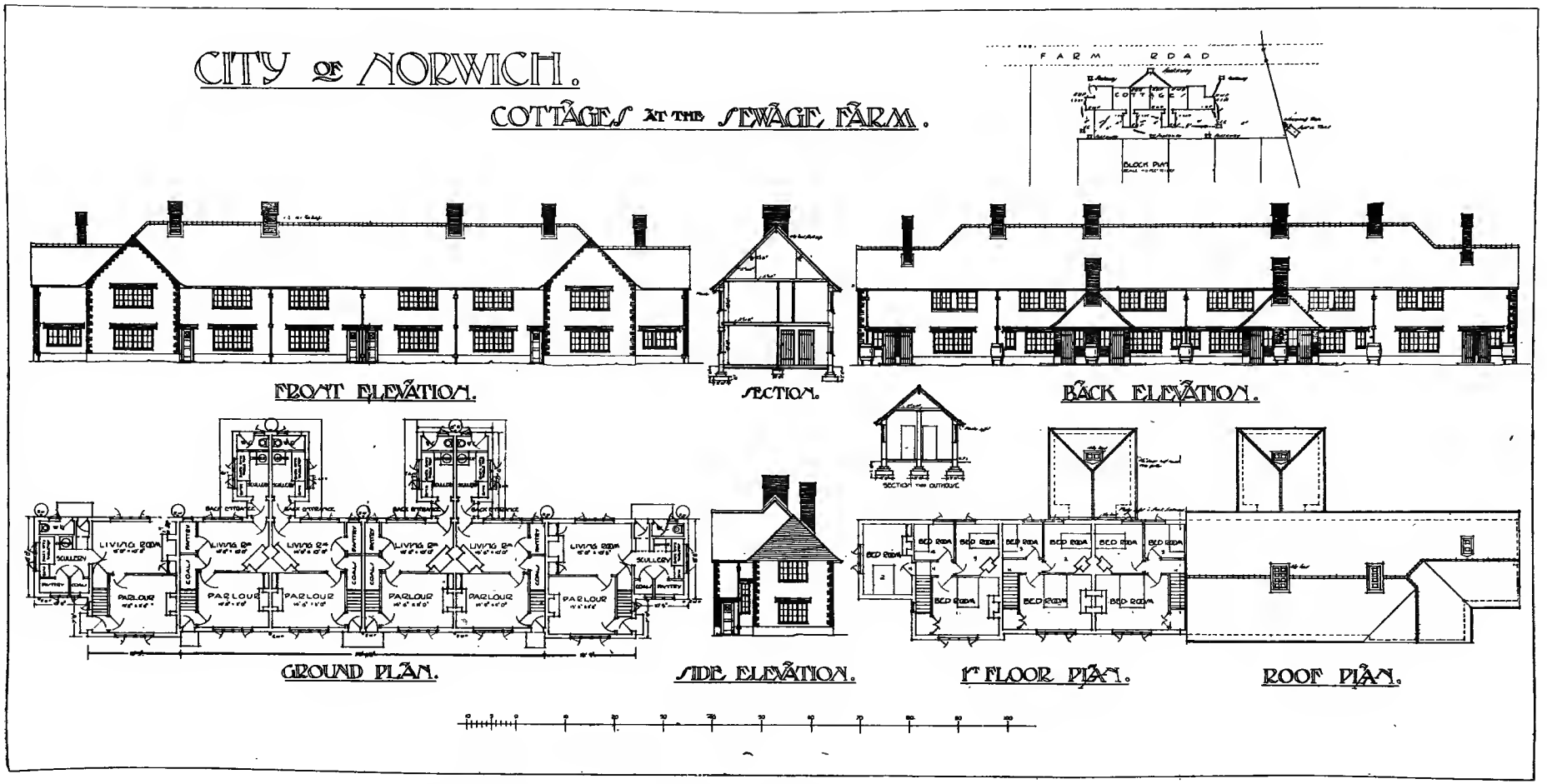
SECTION :



PAIR OF COTTAGES AT EAST CLANDON, SURREY. H. S. GOODHART-RENDEL, ARCHITECT.

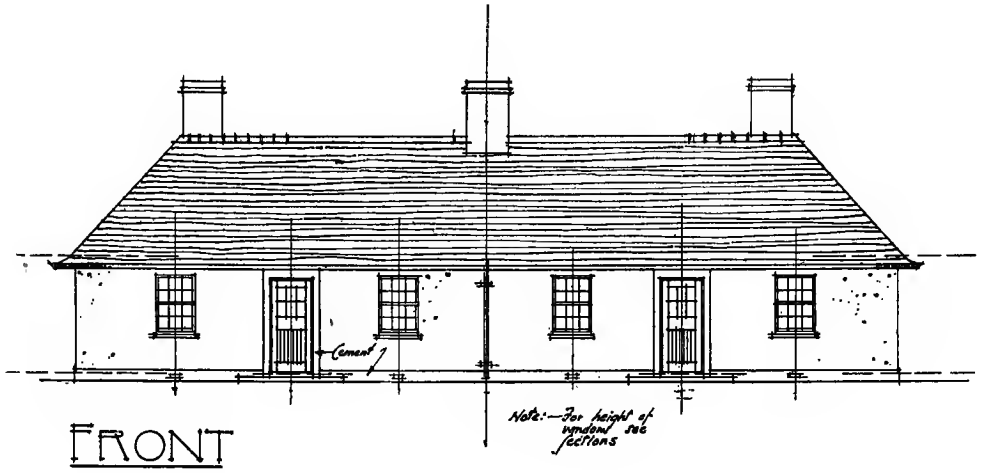
Cost £668. 11 in hollow walls, of purple stocks; tiled roof.

COTTAGES AT WHITLINGHAM FARM, NORWICH. ARTHUR E. COLLINS, M.Inst.C.E., CITY ENGINEER.

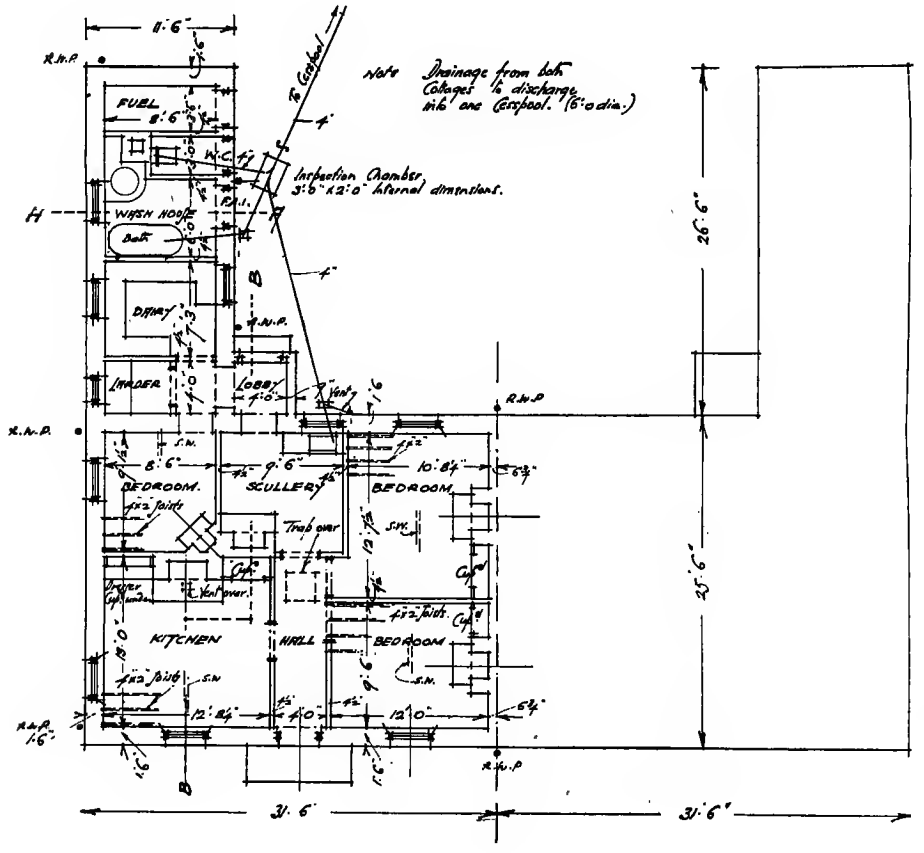


COTTAGES AT WHITLINGHAM FARM, NORWICH. ARTHUR E. COLLINS, M.INST.C.E., CITY ENGINEER.

Six tenements. Cost £1,350. Walls built of concrete blocks 2 ft. 8 in. by 1 ft. 4 in. by 4½ in. thick, external walls being hollow, comprising two 4½in. walls with 2¼ in. cavity. Party walls 9 in., partition walls 4½ in. Roof covered with Norfolk sand-faced pantiles on reeds.



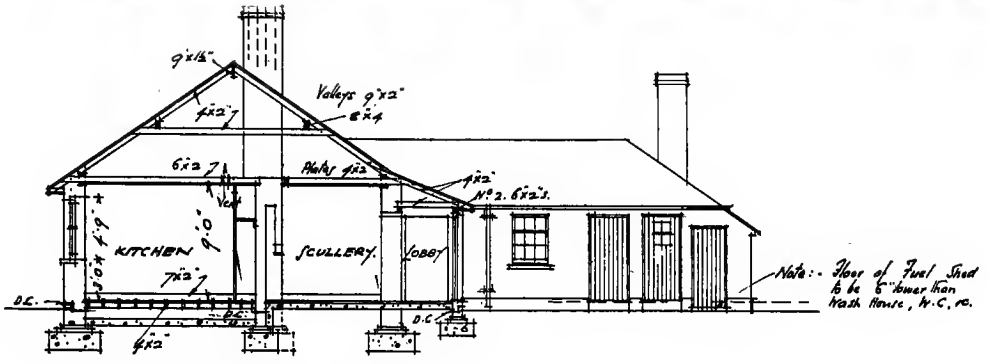
FRONT



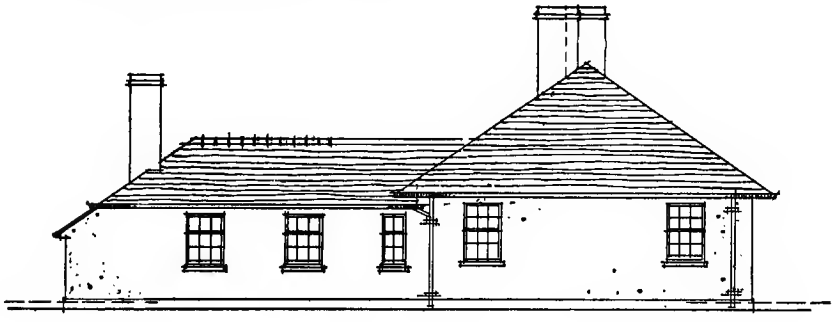
PLAN.

FARM HOUSES AT POSTBRIDGE, DEVON.

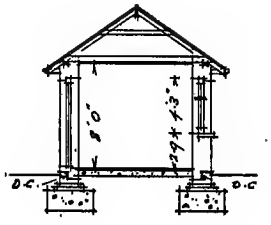
RICHARDSON AND GILL, FF.R.I.B.A., ARCHITECTS.



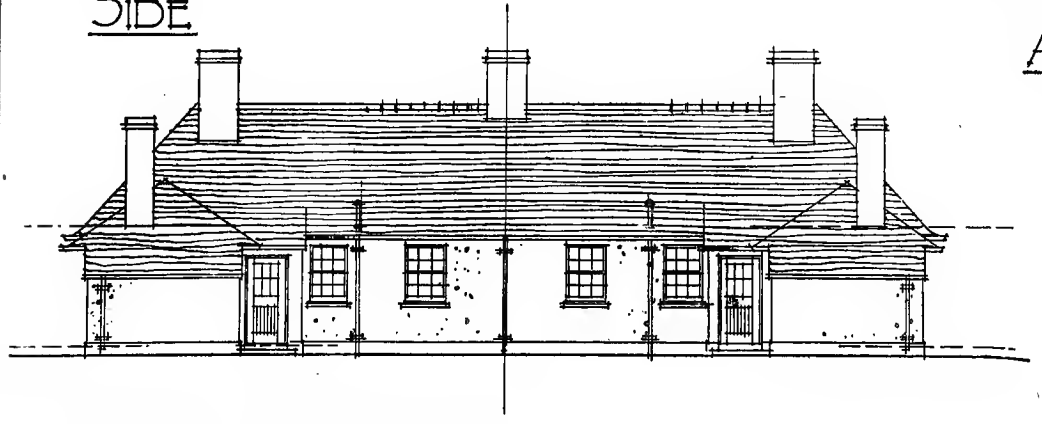
SECTION B.B



SIDE

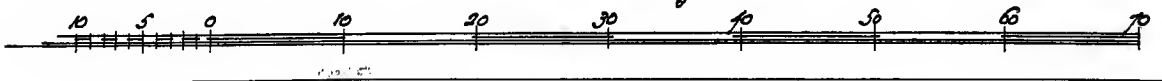


A.A.



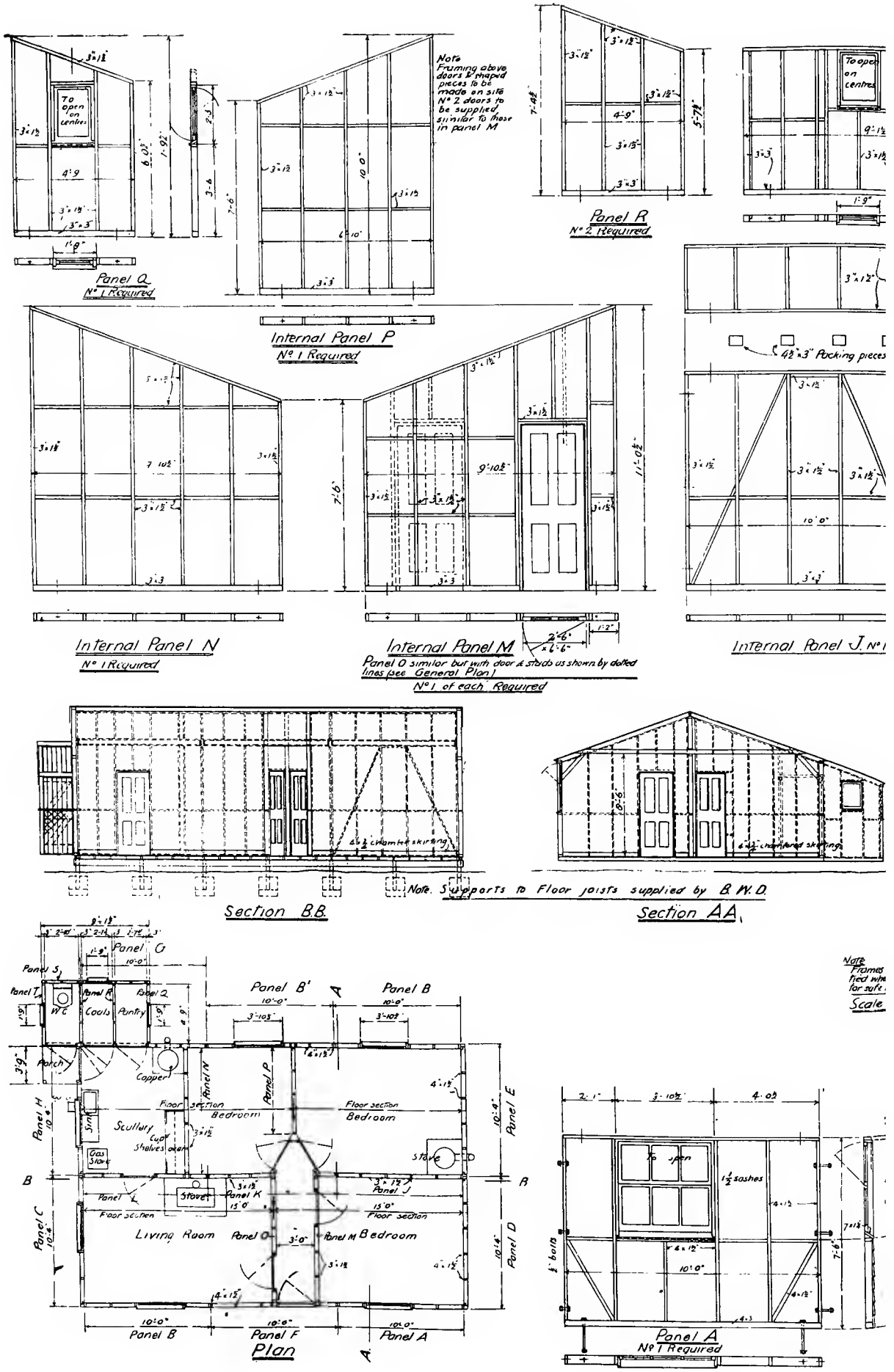
BACK ELEVATION

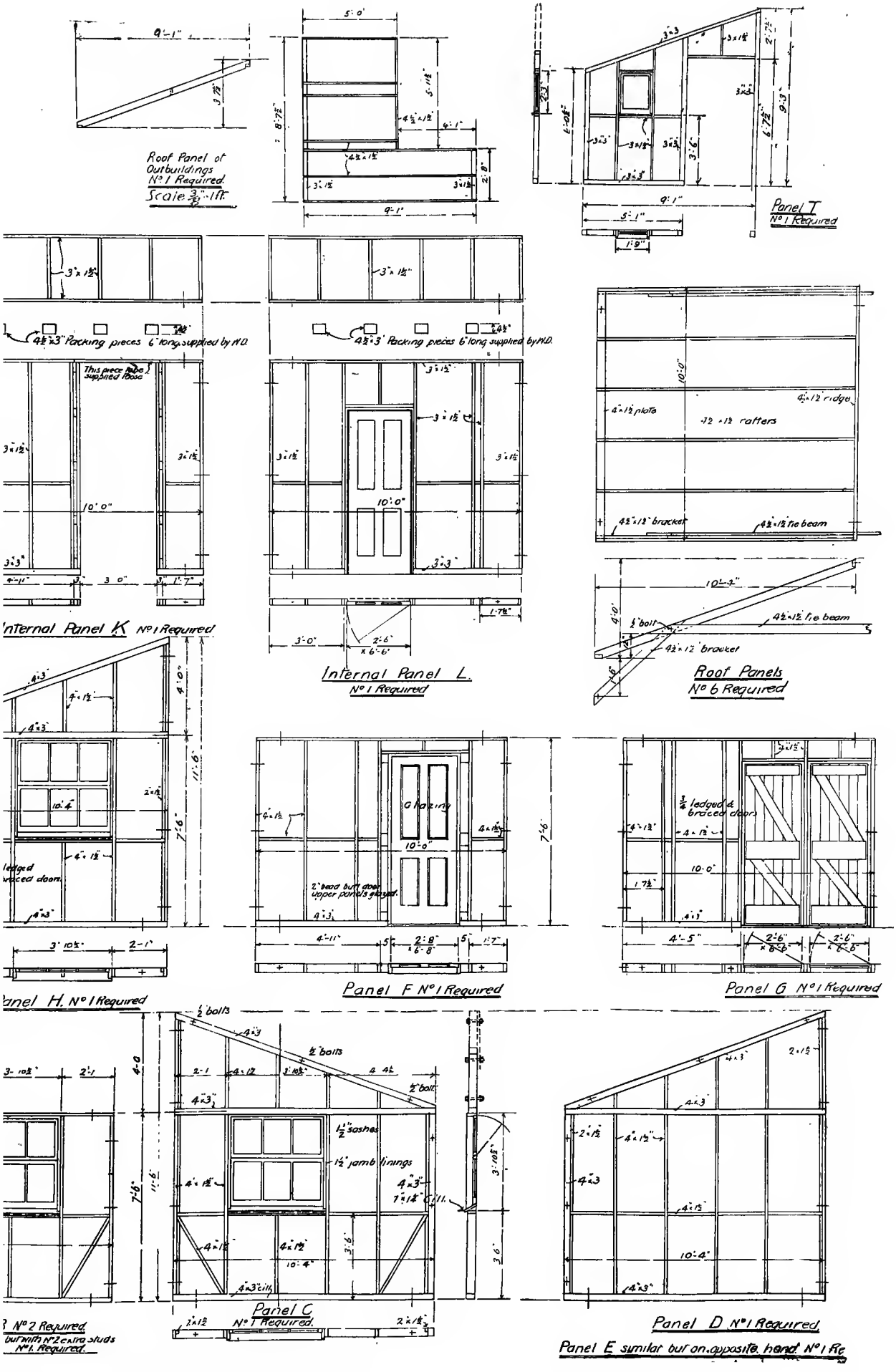
Scale of Feet.



FARM HOUSES AT POSTBRIDGE, DEVON.

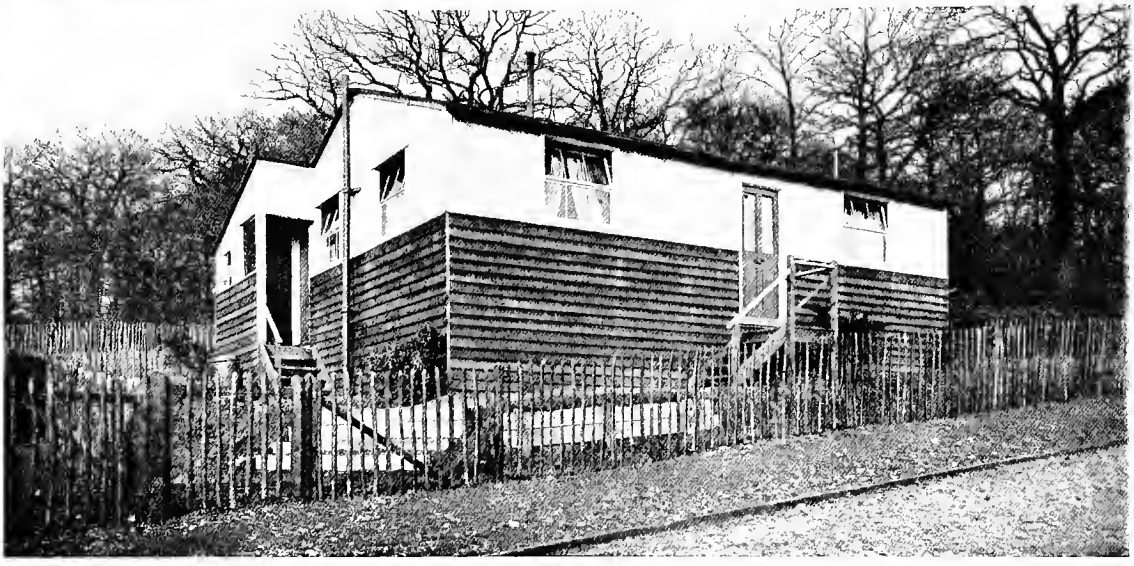
RICHARDSON AND GILL, FF.R.I.B.A., ARCHITECTS.

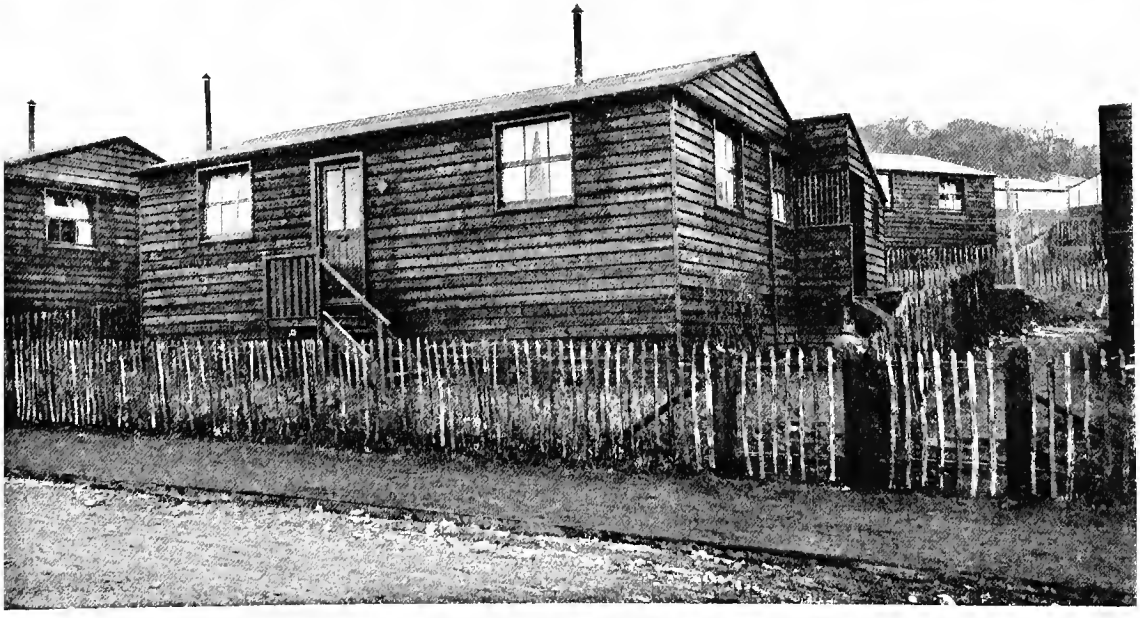

Panel Q
N° 1 Required
Note Framing above doors & shaped pieces to be made on site N° 2 doors to be supplied similar to those in panel M
Internal Panel P
N° 1 Required
Panel R
N° 2 required
To open on centres
4½"x3" Packing pieces
Internal Panel N
N° 1 Required
Internal Panel M
Panel O similar but with door & studs as shown by dotted lines (see General Plan)
N° 1 of each Required
Internal Panel J N° 1
Section BB
Section AA
Note. Supports to Floor joists supplied by B.W.D
Panel G
Panel S
Panel T
Panel R
Panel Q
Panel B'
Panel B
W.C
Cools
Pantry
Porch
Copper
Panel N
Panel P
Floor section
Bedroom
Scullery
Cupb'd Shelves abv
Sink
Gas Stove
Stove
Panel H
Panel C
Panel L
Panel K
Panel J
Panel E
Panel D
Living Room
Panel O
Panel M Bedroom
Panel B
Panel F
Panel A
Plan
Note Frames fixed with for safe
Scale
To open
1½ sashes
½" bolts
Panel A
N° 1 Required



M, KENT · DETAILS OF CONSTRUCTION.

enal.)





HUTMENTS FOR MUNITION WORKERS, WELL HALL, ELTHAM, KENT.
(Building Department, Woolwich Arsenal.)

SECTION II.

GOVERNMENT HOUSING SCHEME AT WELL HALL, ELTHAM, KENT.

A FEW years ago the Well Hall Road, leading from Woolwich to Eltham, now broad, well paved and served by trams, was an almost unknown country lane crossing the eastern slope of Shooters Hill. The wayfarer, setting out from Woolwich for a quiet ramble, could find few finer prospects of town—*the* town—and country than that obtained from the summit of this slope, or air more bracing than that which sweeps across the unfenced common beyond.

At the beginning of 1915 the shallow valley between Shooters Hill and the heights of Eltham consisted for the most part of market gardens ; but by the end of the same year these had made way for an ordered scheme of dwellings very pleasant to look upon, and wearing an aspect of comfortable prosperity. This scheme was the direct outcome of the War, and was initiated in order to deal with the serious scarcity of housing accommodation in the neighbourhood of Woolwich resulting from the vastly increased staff of employees at the Arsenal. Although the whole of the work of covering an area of ninety-six acres with permanent houses occupied less than a year from start to finish, the houses present an aspect of durability sometimes lacking in schemes of a similar nature. Moreover, there is no suggestion of hurried or scamped labour anywhere ; and the materials indicate the utmost care in selection to the smallest detail.

The provision of houses in the neighbourhood of Woolwich being a military requirement, speed in their erection was of paramount importance ; it was indeed one of the most stringent conditions upon which the scheme was launched. The work of setting out the roads, sewers, and houses was commenced on February 3, 1915, and on December 11 of the same year all the roads and houses were finished and the latter handed over to the L.C.C. Estate Office.

Lay-out of Site.

The site is intersected by the Well Hall Road, from which no corner is distant more than 400 yds. This fact, together with its proximity to Well Hall Station, which is situated 300 yds. from the southernmost corner, were the main factors governing the choice, the railway being essential for the transport of the vast quantities of material employed on the works. Sixty-six acres on the east side of the road and thirty acres on the west side were purchased. The land had a soft and spongy surface, which added vastly to the preliminary work ; moreover, it was intersected by ditches ; but this latter disadvantage was turned to good account, for these ditches were dammed up and served as a water supply for the work at the outset, no other service being then available.

In judging the lay-out of the scheme under review it must be borne in mind that it differs from most other "garden cities" inasmuch as it has no focus such as a church, hall, or schools from which roads would naturally tend to radiate ; and whilst strictly a suburb of Woolwich, it is simply a collection of houses erected for a specific purpose and allowing of no accessories. Moreover, the question of speed rendered it incumbent on the architect (H.M. Office of Works) to save so far as possible the additional expense which would have resulted from much excavation ; and, as a consequence, the roads have been laid to follow wherever possible the natural contours of the ground. This condition has been turned to good account, and some very pleasing curves and sweeps, which contribute materially to the display of the houses, have resulted ; the high pavement which is a feature of Ross Way (see Plate IV.) evincing

a similar adaptability to existing conditions on the part of the architect. The open spaces are of considerable area, and a liberal allowance of garden space has been allotted to each house, the average area being 1,100 ft. super. All the roads, which are readily accessible to the Well Hall Road, are gravelled, which gives a bright and sunny effect even on a wet day. The pathways are likewise gravelled, the more frequented ones being laid with staggered concrete paving slabs down the centre. The granite gutters, edged by granite setts on the one hand and the pathway kerb of the same material on the other, are quite effective; and the lettering of the cast-iron name-plates has been well chosen. The roads, of which there are 3·64 miles, are 40 ft. and 30 ft. wide, according to the amount of traffic passing over them. In this connection it may be mentioned that there are 4·85 miles of sewers, which figure includes a 15 in. sewer 660 ft. long; his passes under the tram line in Well Hall Road, and reaches a maximum depth of 30 ft.

The names of the roads for the most part recall personages who have been connected with the Arsenal and town of Woolwich, and other local worthies.

Open spaces for recreation have been provided on both sides of the Well Hall Road. On the east side Lovelace Green is the chief, readily accessible from all roads. There are several minor open spaces on this side, as will be seen by referring to the site plan. On the west side the most considerable open space is Sandby Green. The retention of the trees and hedge in Franklin Passage is a happy expedient; and while referring to this it may be stated that no trees were felled during the operations of laying-out the site, a most praiseworthy practice which should never be lost sight of in suburban planning.

Types of Houses.

The total number of houses or flats provided is 1,298, the number of the latter being 212; thus provision has been made for a population of about 6,490. Blocks comprising three or more houses have not been planned in straight lines, but are so grouped as to obtain the maximum of light and air in the rooms, which arrangement also results in the avoidance of that bane of most suburban areas—monotony. Blocks vary from two to fifteen houses apiece, with one street of fifteen houses.

The houses are divided into four classes. Those in Class I. (shown black on the accompanying site plans) each contain a living room, parlour, spare bedroom, or dining room, and scullery on the ground floor, and three bedrooms, a bath-room (with hot and cold water laid on), and the usual offices on the first floor. In Class II. (shown dotted on the site plans) the spare bedroom, or dining-room, on the ground floor is omitted. In Class III. (shown hatched on the site plans) each house contains a living room and scullery on the ground floor, and three bedrooms with usual offices on the first floor, the bath being transferred to the scullery. The self-contained flats are known as Class IV. (shown cross-hatched on the site plans), and are arranged in two-storey houses with gardens which can be split up between the various occupants. These flats each consist of a living room, scullery, with bath, two bedrooms and the usual offices.

The houses in the crescent facing Well Hall Road near the station (see Plates I.–III.) all belong to Class I., excepting the middle house, No. 116, which falls into the category of Class II. Taking the first of this group as an example, the dimensions of the rooms are as follows: On the ground floor, sitting room, 14 ft. 3 in. by 11 ft. 3 in.; parlour, 12 ft. by 9 ft.; spare bedroom, or dining-room, 12 ft. by 7 ft. 9 in.; scullery, 10 ft. by 5 ft. 6 in. On the first floor the bedrooms are 14 ft. 3 in. by 10 ft. 6 in., 12 ft. by 9 ft. 2 in., and 12 ft. by 7 ft. 9 in. respectively, and the bath-room 6 ft. 4 in. by 4 ft. 9 in. The frontage is 31 ft., the garden is 54 ft. by 30 ft., and the inclusive rental is 16s. a week. The dimensions of the rooms in No. 116 in the same group are: On the ground floor, sitting room, 17 ft. by 11 ft.; parlour, 11 ft. 3 in. by 10 ft.; scullery, 10 ft. by 5 ft. 6 in. On the first floor the bedrooms are 17 ft. 4 in. by 10 ft., 11 ft. by 9 ft., and 11 ft. by 8 ft. respectively, and the bath-room 5 ft. 9 in. by 5 ft. 6 in. The frontage is 27 ft. 3 in.; the garden, 75 ft. by 38 ft.; and the inclusive rental is 13s. a week.

The pair of cottages, Nos. 22 and 24, Lovelace Green (shown on Plate XIII.), belong to Class III. The dimensions are: On the ground floor, living room, 16 ft. 6 in. by 10 ft. 7 in., and scullery with bath, 10 ft. 6 in. by 6 ft. 6 in. On the first floor, the bedrooms measure 12 ft. 10 in. by 9 ft. 1 in., 12 ft. 3 in. by 7 ft. 9 in., and 9 ft. 6 in. by 7 ft. respectively. The frontage is 21 ft. 9 in. The garden of No. 22 is 55 ft. by 46 ft., and that of No. 24 is 50 ft. by 32 ft. The inclusive rental of each is 11s. a week.

The self-contained flats are situated in Granby Road, the furthest removed from Well Hall Road. The dimensions of the ground-floor flat, No. 65 (see Plate XVI.) are: Living room 13 ft. 6 in. by 12 ft. 6 in.; bedrooms, 11 ft. by 9 ft. 9 in., and 11 ft. by 8 ft. 6 in.; and scullery (with bath) 14 ft. by 5 ft. 9 in. The dimensions of the first floor flat, No. 65a, are: Living-room, 14 ft. 9 in. by 12 ft. 6 in.; both bedrooms 11 ft. by 9 ft. 9 in.; and scullery (with bath), 13 ft. by 5 ft. 9 in. They have a frontage of 33 feet, and the garden is 62 ft. by 46 ft. The inclusive rental of the first-floor flat is 7s. 6d. a week, of the ground-floor flat, 7s.

The first house on the estate was let on May 22, 1915, and on December 31 of the same year only fifty of the 1,298 houses remained unoccupied.

Materials.

A study of the materials and the method of using them is extremely interesting. To provide these in sufficient quantities for so great an enterprise at short notice would in many cases have proved a serious handicap to rapid progress had not the architect hit upon the happy expedient of obtaining them from as many sources as practicable, whereby not only was a prompt and steady delivery obtained, but that variety which is so notable a feature of the scheme was realised. When it is stated that the building material and plant delivered by rail and road reached the gigantic total of 252,327 tons, it will be readily understood how essential was such an arrangement.

The bricks used for backings were Flettons; but the facings came from so many brick-fields that each cannot be individually named here. They were carefully selected on the job in order to produce the very pleasing combination which is seen. The same remarks apply to the tiles. Although the colour and tone of these varies from dark brown to light red, and dark blue to light grey, no violent contrasts offend the eye. In addition, some old tiles have been introduced. The majority of the slates were obtained from the Carnarvon district. "Greenarvon," Welsh Green "rustic randoms," used by themselves and in conjunction with "Vaingaled," and Abergynolwyn Welsh greys have given some very satisfactory results. "Old Delabole," of the rough-faced, stout, grey-green variety, are also pleasing.

The timber used for the half-timber work is, for the most part, pitch-pine treated with "Solignum," and some oak has been used in weather-boarding. The scantlings were standardised and the houses planned accordingly in order to facilitate expedition. Window and door frames have for the most part been painted white, the doors "invisible" green, though some are stained according to their surroundings. Ironwork is uniformly black. The treatment of the rough-cast, both as regards surface and colour, will repay careful study; most of it has been applied in one coat. The oak fencing, of which there is 27½ miles on the estate, is also an interesting study in variety.

Below are added some detailed particulars of materials used in groups of houses shown among the accompanying illustrations as representative examples:

Crescent of Houses, Well Hall Road.

(Plates I.–III.)

The ground floor is of red brick with rather dark pointing; the screens connecting the three blocks being of brighter bricks with lighter pointing. The first floor and gables are tile-hung, and the roofs are covered with dark tiles. The door-frames and leaded casements are painted white, the doors dark green, and the ironwork black. Steps are of bright red brick-on-edge.

Block of Four Houses, Downman Road.

(Plates V. and VI.)

The ground floor is stuccoed, the first floor boarded with pitch-pine treated with "Solignum." The frames and casements are painted white, the doors stained. Semi-vitrified brick-on-edge has been used for the steps; dark red tiles cover the roof; and the chimneys are of varied bright red bricks.

Block of Seven Houses, Well Hall Road.

(PLATES V. AND VII.)

The facings are of thin richly coloured bricks with wide joints, a reticent introduction of blue bricks in the gables breaking up effectively the rather large area. The roofs are covered with " rustic random " slates in diminishing courses. The leaded casements have white frames, the doors being dark green.

Block of Four Houses, Phineas Pett Road.

(PLATES VIII. AND IX.)

The gables are in half timber and buff stucco, the ground floor between these being of the same material and the first floor hung with green Welsh slates, which also cover the roof (which has a blue half-round ridge). The chimneys are stuccoed, with brick caps. Casements and frames are white, doors dark green.

Block of Five Houses, Sandby Green.

(PLATE XI.)

The rough-cast is brown-grey in tone, the timber treated pitch-pine, apart from a small amount of oak weather-boarding in the apex of one of the gables. The shoulders of the gables are in purple bricks, and steps are red brick-on-edge. Sussex stone quoins have been introduced at the angles of the porches. The casements are painted white and the ironwork black.

Pair of Cottages, Lovelace Green.

(PLATE XIII.)

The walls are grey rough-cast, with a red tiled roof and first floor. Chimneys and steps are of brick. Frames and casements are white, doors dark green, and ironwork black.

Flats in Granby Road.

(PLATE XVI.)

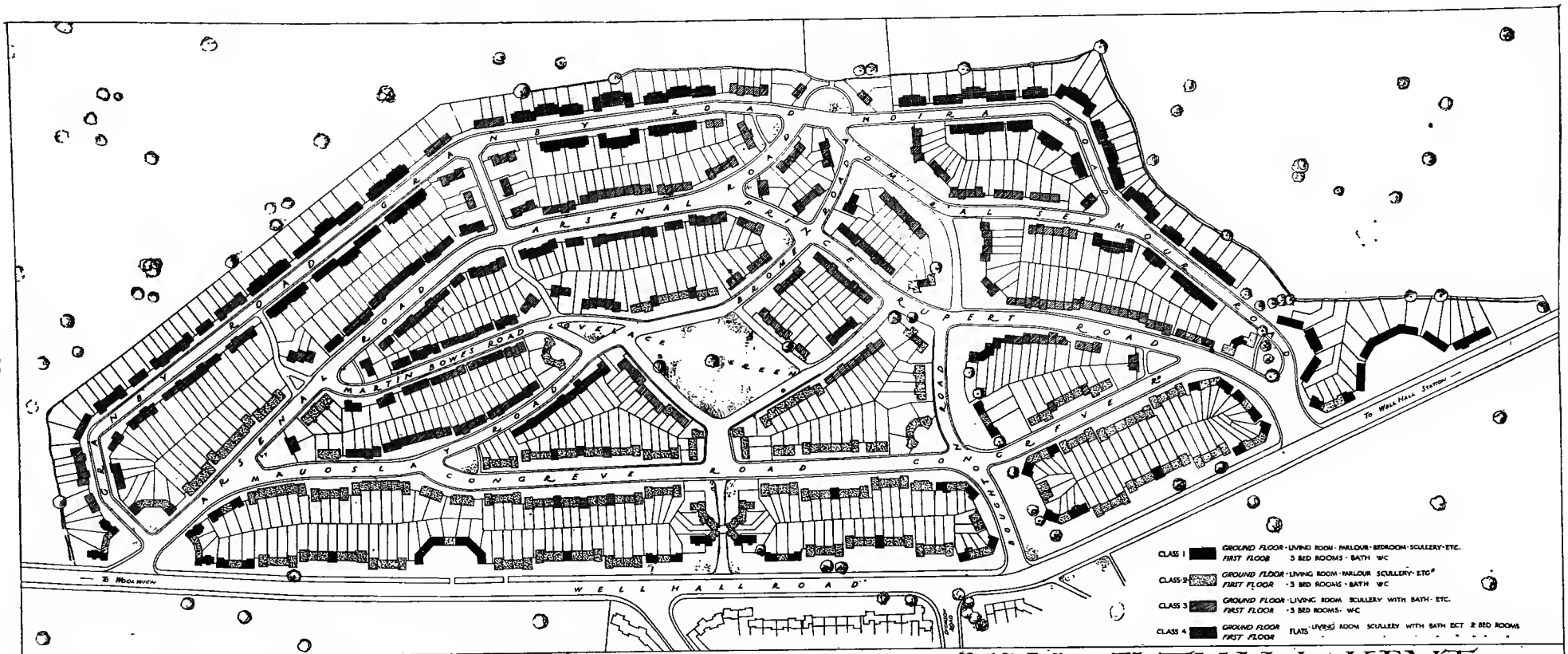
Most of the houses in this road consist of self-contained flats. It is, perhaps, the best in which to study the handling and colour of the stucco, and the varied materials used for roofing.

* * * * * *

The scheme was devised by His Majesty's Office of Works. Messrs. Mowlem and Company were the contractors for the roads ; and they shared equally with Messrs. Leslie and Company the contract for the houses. There were thirty-six sub-contractors, the timber and fittings having been supplied direct by the Commissioners of His Majesty's Works and Public Buildings.

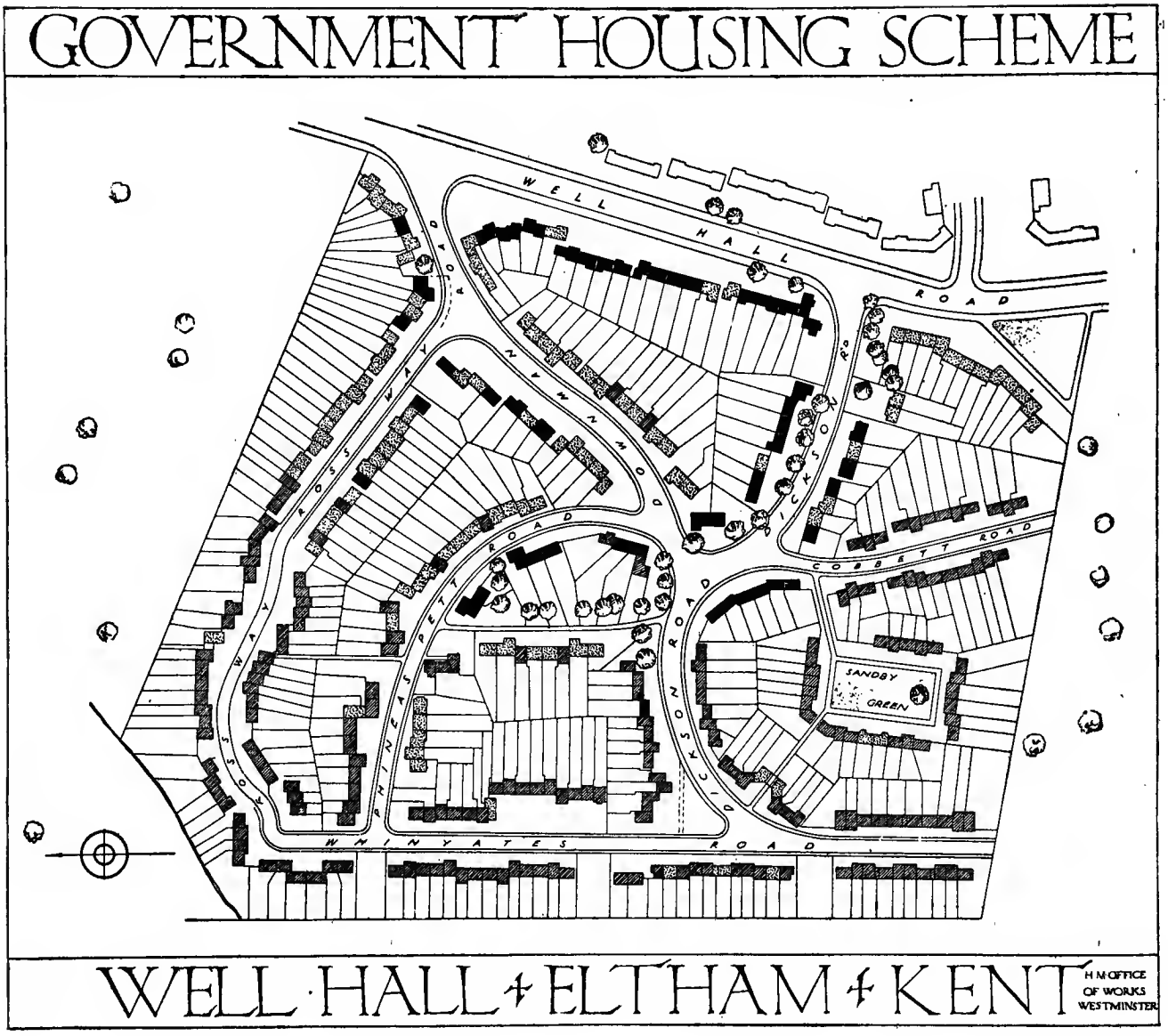
The maximum number of men employed at one time on the works was 5,637. Taking into consideration the scarcity of labour prevailing at the time, and the fact that men engaged on Government work consider themselves entitled to higher pay and better conditions than when engaged on ordinary contract work (the feeling in the present case having been accentuated by the large earnings of the employees at Woolwich Arsenal, where greater numbers were ever in demand), it is remarkable that no serious trouble resulted in this connection.

The foregoing gives the essential facts and figures of the scheme. The actual results obtained can best be judged by the accompanying plates, which show, we think, that H.M. Office of Works have on this Well Hall Estate carried out a large housing scheme in a brilliantly successful manner.

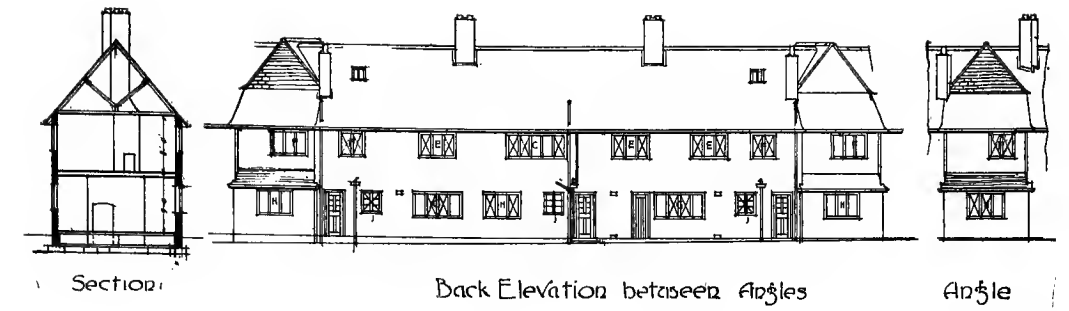


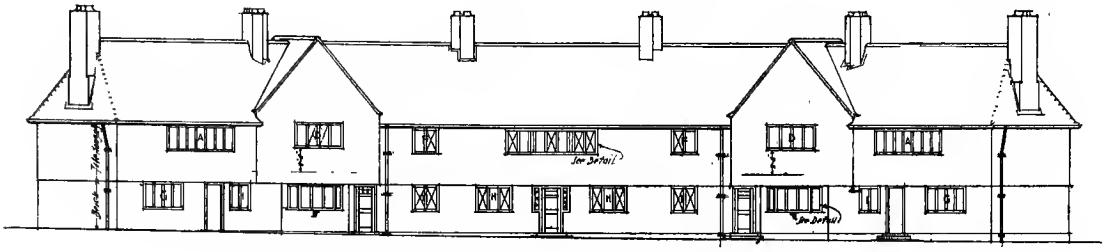
GOVERNMENT HOUSING SCHEME ✦ WELL HALL ✦ ELTHAM ✦ KENT ✦

H M OFFICE OF WORKS WESTMINSTER

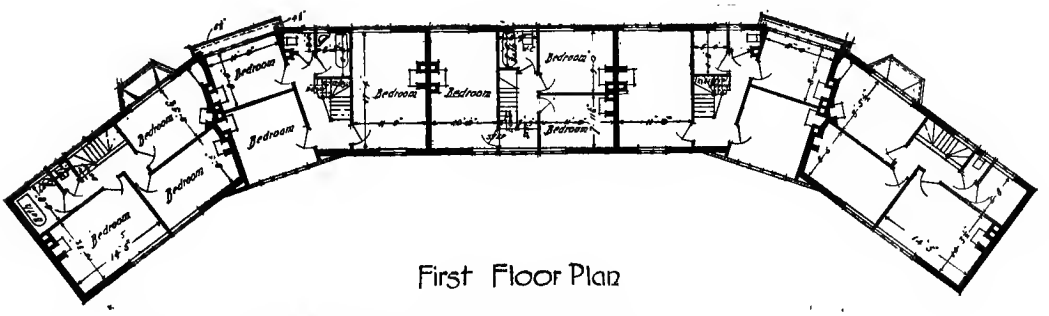

GOVERNMENT HOUSING SCHEME
WELL HALL ROAD
ROSS WAY
NEWMAN ROAD
DICKSON RD
COBBETT ROAD
PHINEAS PETT ROAD
DICKSON ROAD
SANDBY GREEN
WHINYATES ROAD
WELL · HALL + ELTHAM + KENT
H.M. OFFICE OF WORKS WESTMINSTER

I.—CRESCENT OF HOUSES, WELL HALL ROAD.
Class I.





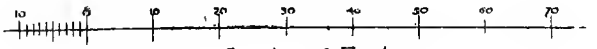
Front Elevation



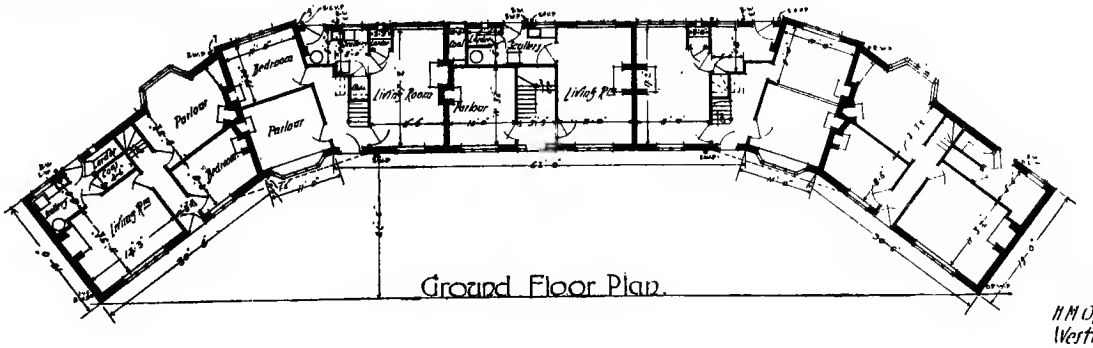
First Floor Plan

Note

External walls where not Starred to be built hollow 11" thick and to have Galv W I Ties one to every yard sup. of Brickwork



Scale of Feet



Ground Floor Plan.

H M Office of Works Westminster

II.—HOUSES IN CRESCENT, WELL HALL ROAD.

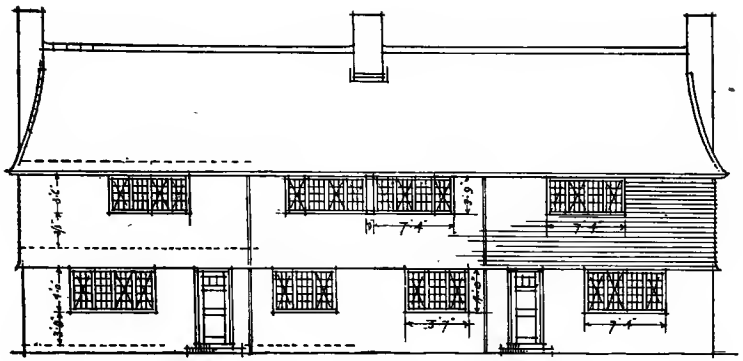
Class I. (excepting middle house—Class II.)

GOVERNMENT HOUSING SCHEME WOOLWICH

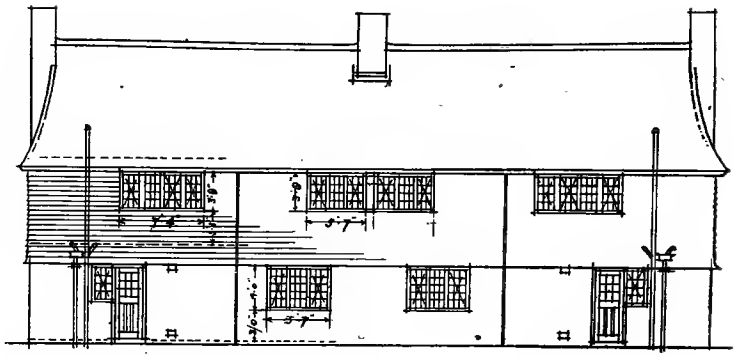
Nº 143.

10 5 0 10 20 30 40 50 60

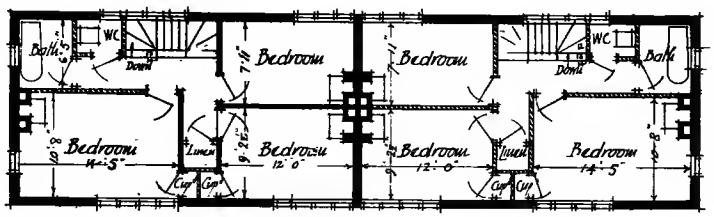
Scale of feet.



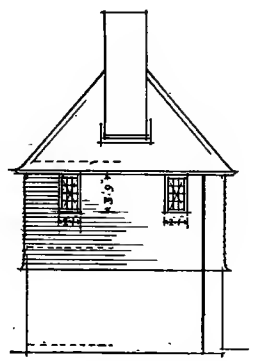
FRONT ELEVATION



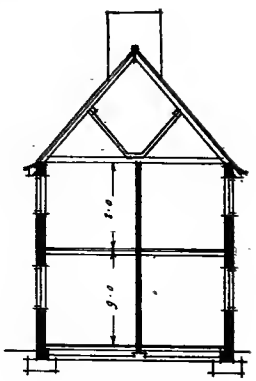
BACK ELEVATION.



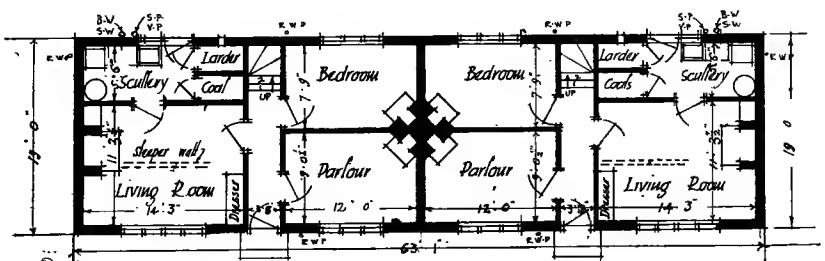
FIRST FLOOR PLAN



END ELEVATIONS



SECTION

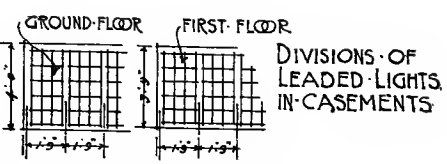


GROUND FLOOR PLAN

NOTE

SASHES SHOWN TO OPEN TO BE STEEL CASEMENTS FILLED WITH LEAD LIGHTS REMAINDER TO BE LEAD LIGHTS FIXED TO STEEL FRAMES

THE EXTERNAL 11 HOLLOW WALLS TO GROUND FLOOR TO HAVE GALVANIZED W.I. TIES ONE TO EVERY YARD SUP: OF BRICKWORK



DIVISIONS OF LEADED LIGHTS IN CASEMENTS

H.M. OFFICE OF WORKS.
LONDON S.W. March 1915.

III.—HOUSES AT ENDS OF CRESCENT, WELL HALL ROAD.

Class I.

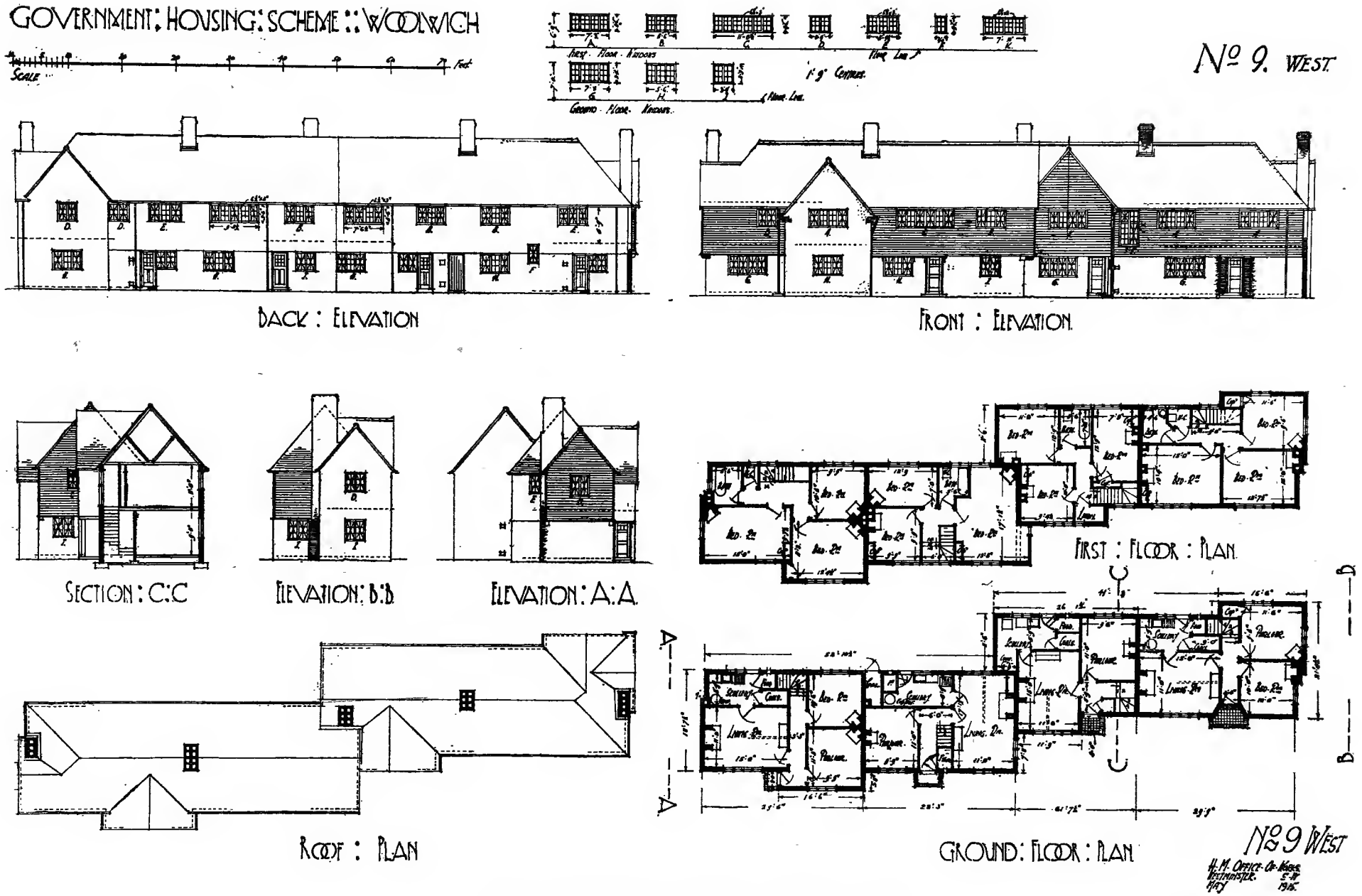
IV.—ROSS WAY.

BLOCK OF FOUR HOUSES, DOWNMAN ROAD.

Classes I. and II

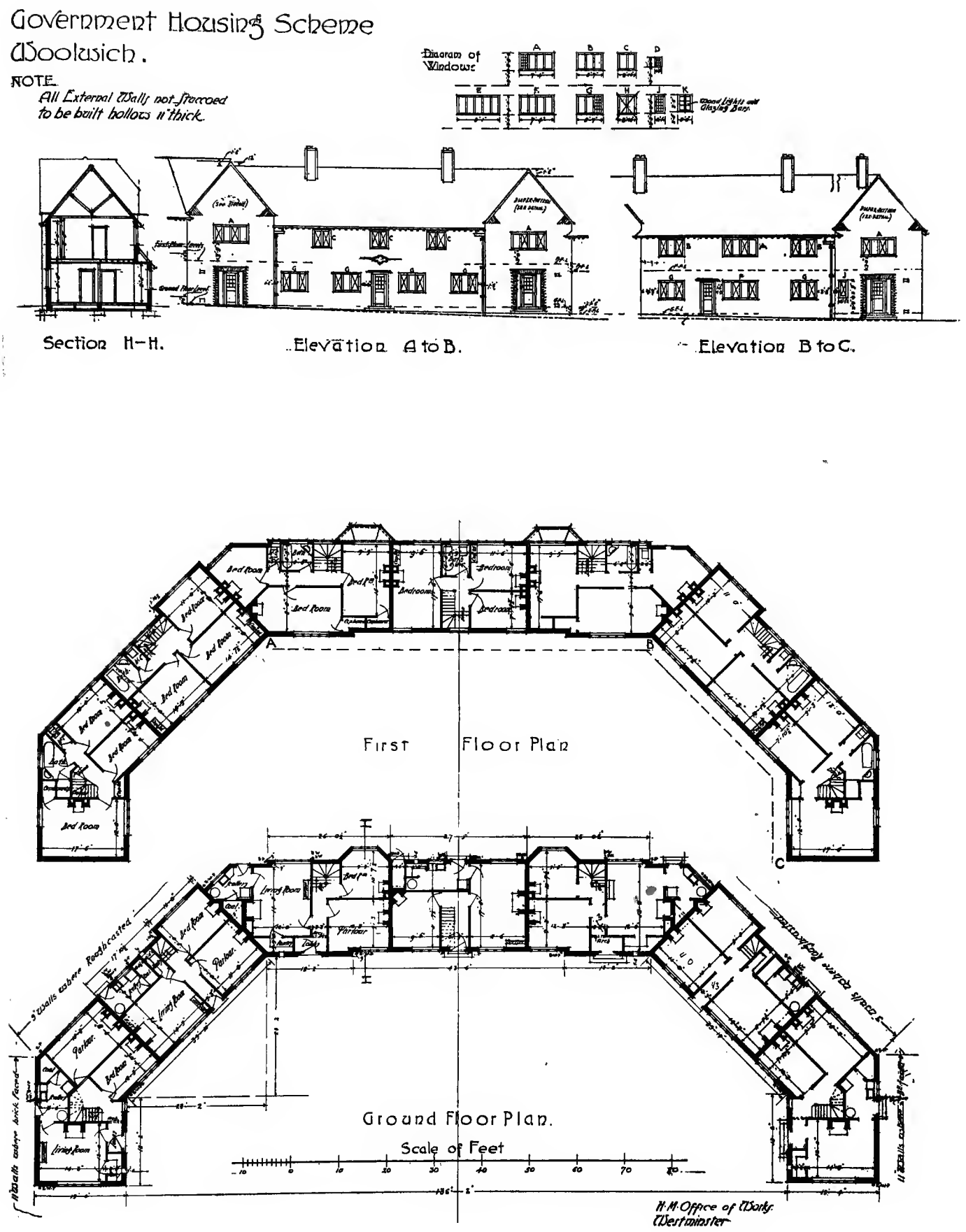
WING OF BLOCK OF SEVEN HOUSES, WELL HALL ROAD.

Classes I. and II.



VI.—BLOCK OF FOUR HOUSES, DOWNMAN ROAD.

Classes I. and II.

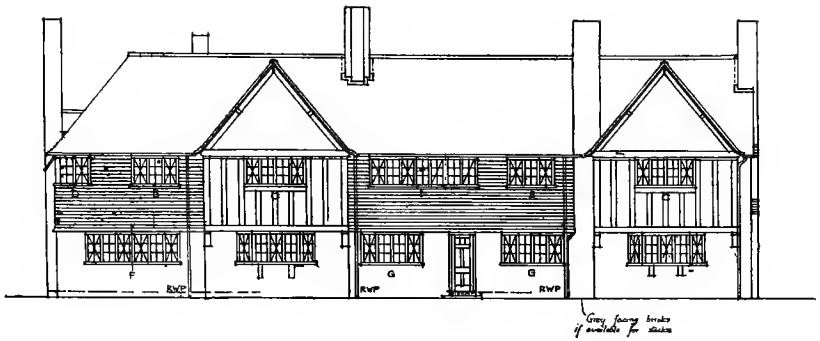


VII.—BLOCK OF SEVEN HOUSES, WELL HALL ROAD.

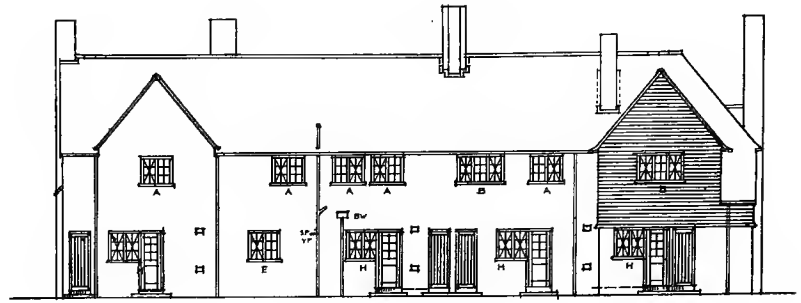
Classes I. and II.

BLOCK OF FOUR HOUSES, PHINEAS PETT ROAD.
Classes II. and III.

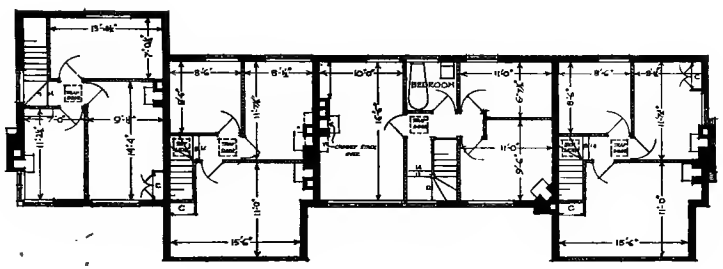
BLOCK OF HOUSES, THE CINDER PATH, WELL HALL ROAD.
Classes I. and II



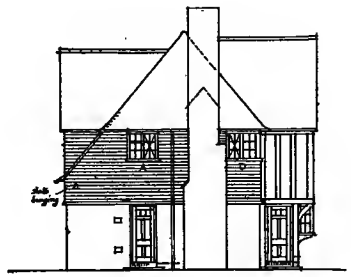
FRONT ELEVATION



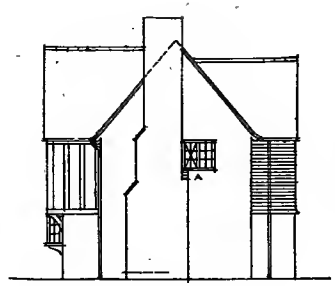
BACK ELEVATION



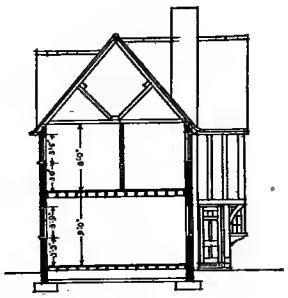
FIRST FLOOR PLAN



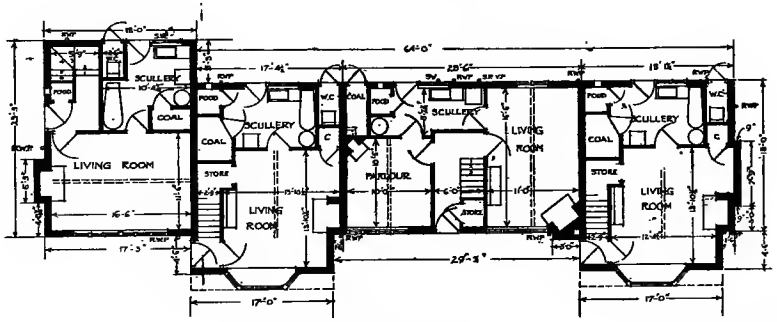
WEST ELEVATION



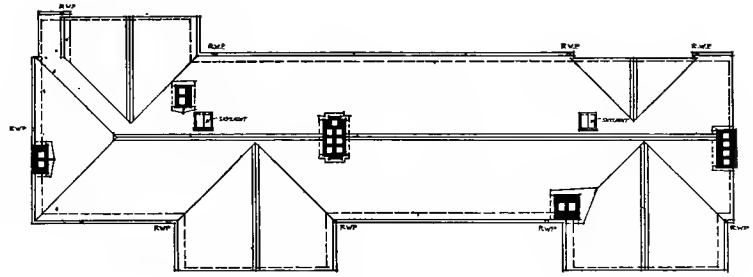
EAST ELEVATION



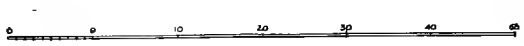
SECTION AA



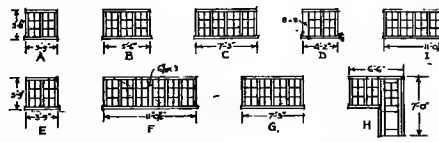
GROUND FLOOR PLAN



ROOF PLAN

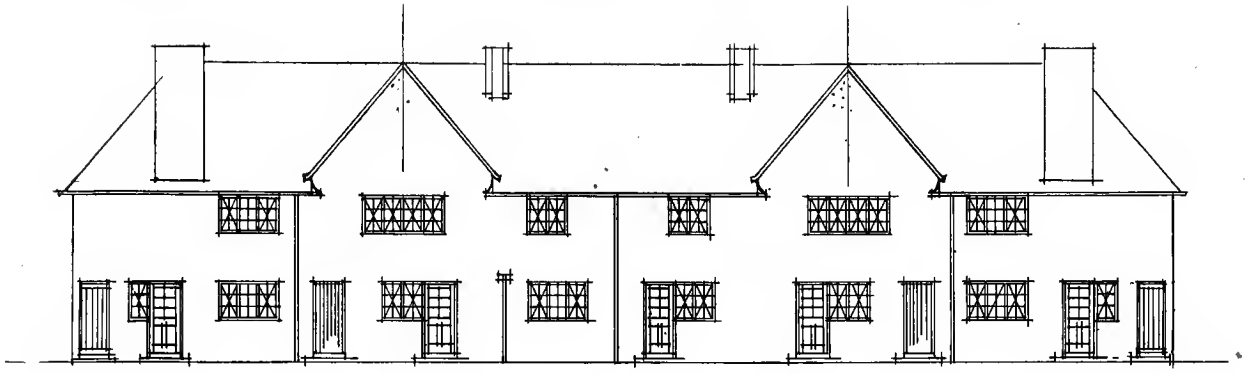


WINDOW DIAGRAM

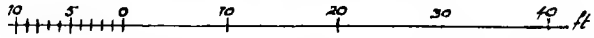


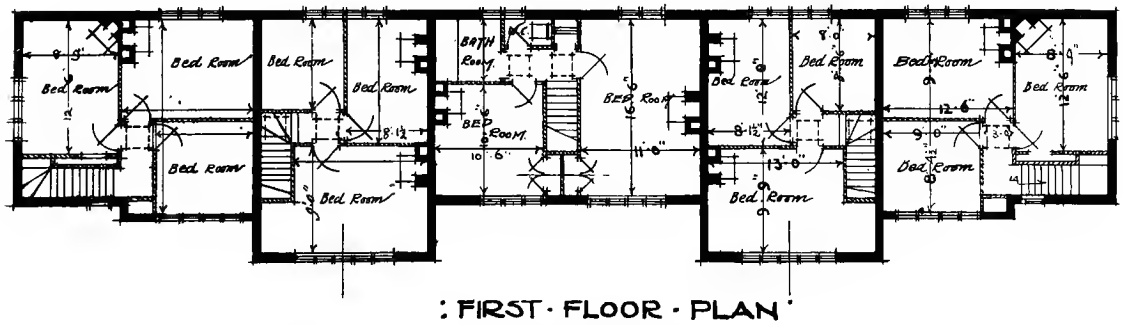
IX.—BLOCK OF FOUR HOUSES, PHINEAS PETT ROAD.

X.—SANDBY GREEN.

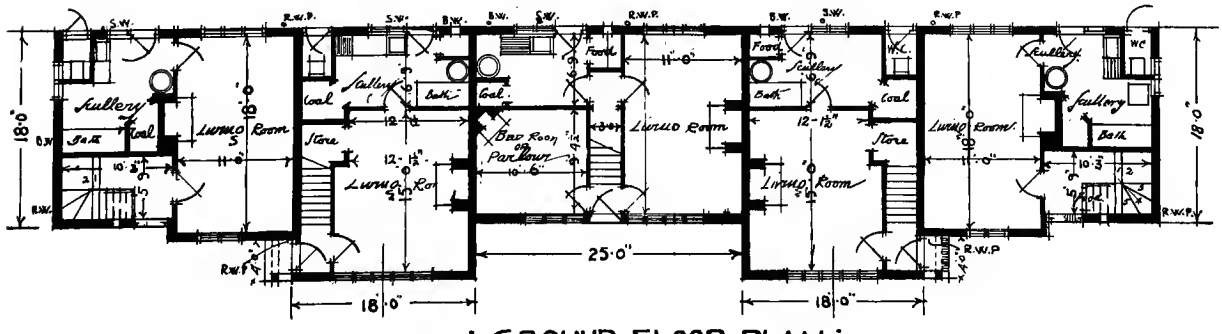


: BACK · ELEVATION :





: FIRST · FLOOR · PLAN :

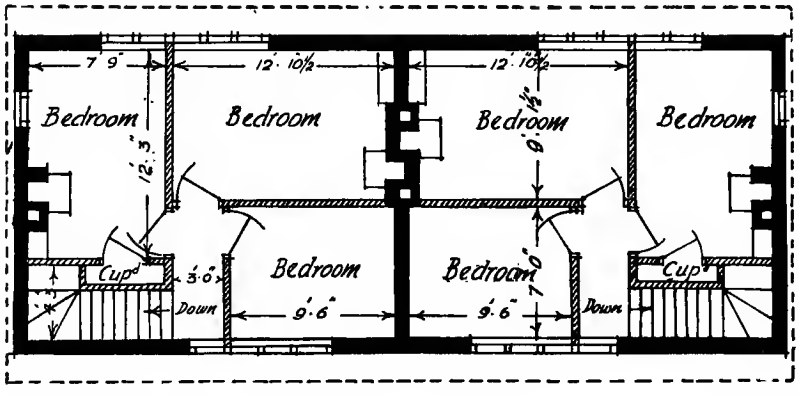


: GROUND · FLOOR · PLAN :

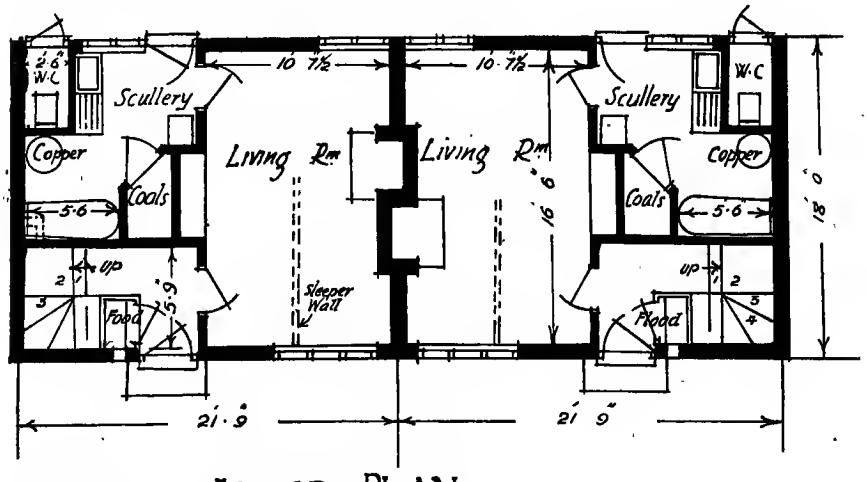
XI.—BLOCK OF FIVE HOUSES, SANDBY GREEN (EAST SIDE).

Class III

XII.—LOVELACE GREEN.



1ST FLOOR PLAN.



GROUND FLOOR PLAN

XIII.—PAIR OF COTTAGES, LOVELACE GREEN.

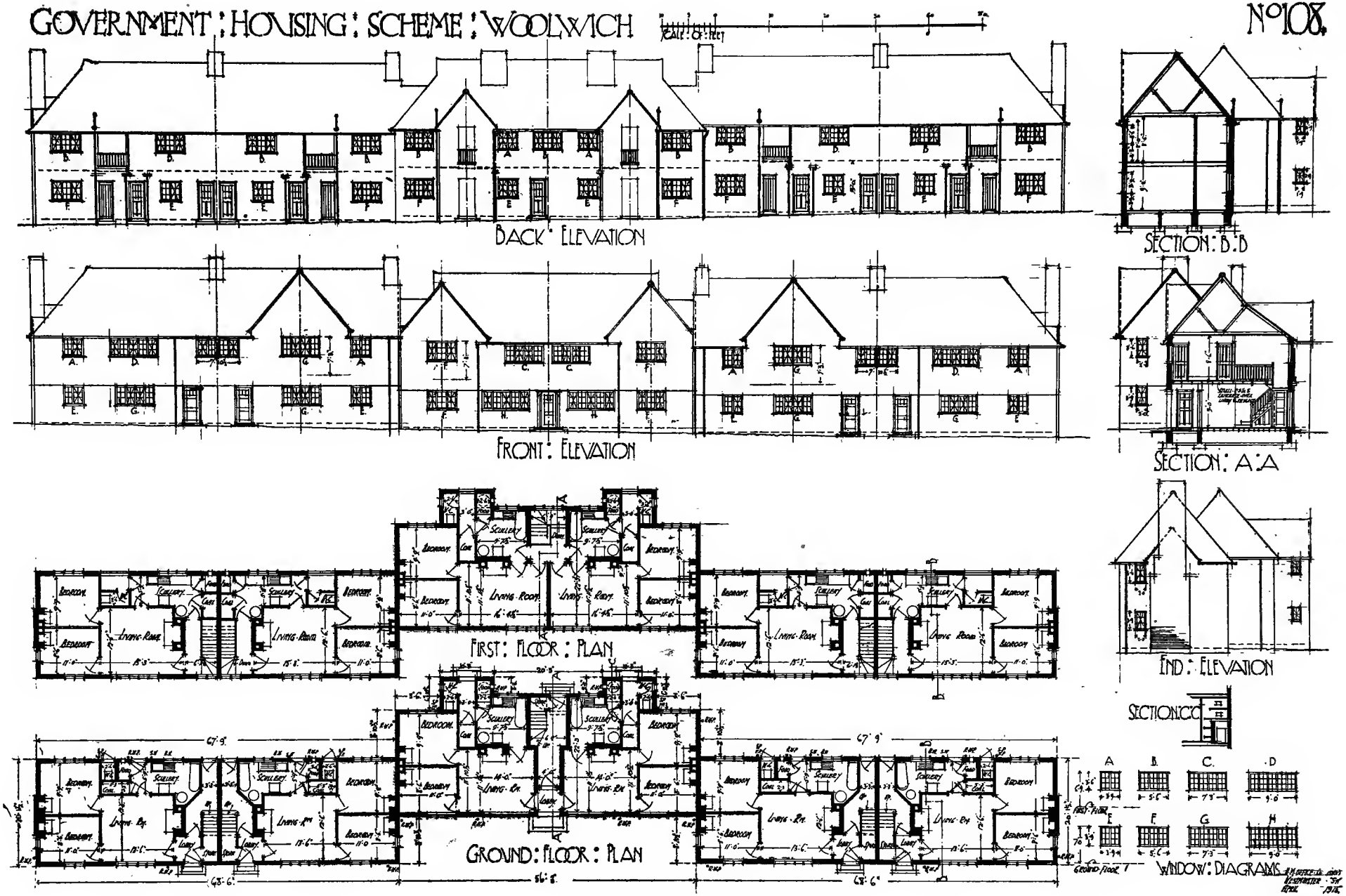
Class III.

XIV.—DICKSON ROAD.

EAST SIDE.

WEST SIDE.

XV.—HOUSES FACING WELL HALL ROAD.



XVI.—FLATS, GRANBY ROAD.

Class IV.

HOUSING

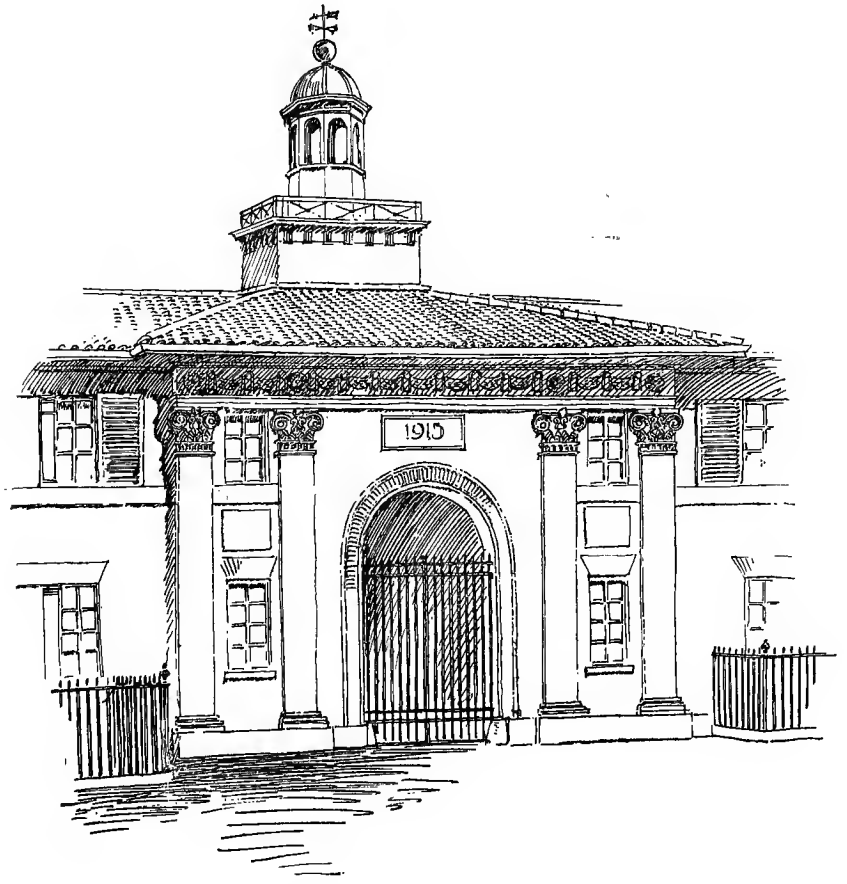
ON THE KENNINGTON ESTATE OF THE DUCHY OF CORNWALL

FOR

HIS ROYAL HIGHNESS

THE PRINCE OF WALES

DUKE OF CORNWALL



ENTRANCE DOOR TO THE ESTATE OFFICE.

THE DUCHY OF CORNWALL ESTATE AT KENNINGTON.

THE improvement of town conditions from a residential point of view has in this country been mainly concerned with the future development of suburban areas. Housing schemes in the centres of our cities have been regarded as necessary makeshifts —in Birmingham, largely taking the form of the remodelling of existing slum property; in London and Liverpool, the building of tenement blocks. All the energies of our town-planners, seeking to make use of the Act, have been devoted to devising schemes which will prevent the By-law Suburb from continuing its cancerous growth over the face of the land; under the clauses limiting the number of houses to the acre, the "garden-city" principle of house density has been generally acquiesced in; and whether or not one agrees with the more drastic proposals of the Garden City itself, it can hardly be denied that it is desirable that the next century's cincture of growth round our existing towns should be one of gardens rather than one of red-brick and macadam. An essential means of success for the garden-suburban town-planning scheme is the provision of arterial highways of communication, without which a man's garden home would be imperfectly accessible from his work; human transportation and improved suburban dwellings are inseparably connected, although one still occasionally hears purblind housing enthusiasts exclaiming against wide main roads. Now the question that concerns us at the moment is, who are to be the inhabitants of these ten thousands of acres that will soon be scheduled under town-planning schemes as land likely to be used and shortly developed for building purposes? Is it the increase of our population? Yes, indeed, partly so at least; but also there will be, it is to be hoped, a great departure from the centre of our towns. Road and rail communication, primarily devised for the diurnal journeyings to and from work, will first be used for a permanent residential exodus. Then will the town landlord find that there are no longer clamouring tenants for his unexhilarating dwellings, and he will have to set about making his property actively attractive, or be ruined. Some of the land will be required for the natural expansion of the commercial and shopping districts, but the remainder will have to be redeveloped if any urban competition is to be set up in opposition to the suburban residential magnet. The property referred to is that inmost ring of outworn dwellings, found in every town and most extremely exemplared at Dublin in the neighbourhood of Mountjoy Square and the Dominic streets, fitly named "extreme," for here is most evident the typical contrast of fine architecture and filthy habitations. No number of artificial corporation housing schemes in the neighbourhood of such areas will eradicate them. The only economic cure is the natural exodus of their inhabitants, lured away with the prospect of house room, a garden, and cheap fares to their work. Then, indeed, will the owners of our ubiquitous Dominic streets bestir themselves with a zeal that the recommendations of fifty Government Commissions cannot arouse.

At Kennington, on the south-eastern side of London, the town landlord, finding himself possessed of outworn property, has begun his rebuilding without waiting for such ignoble stimulus. The Prince of Wales, as Duke of Cornwall, is here moving, as is fitting, ahead of the times, and when the general urban rebuilding takes place, as foreshadowed, the country will have its model to hand, ready to afford inspiration. And if such town houses as those at Kennington appeal to certain people more than the cottages of the Ealing tenants or the Hampstead suburb, let not the Garden City advocate be cast down; there will always be sons of Adam who will not dig, and daughters of Eve who like a full-flagged pavement and town life at their door; and if these are obtainable on the spacious lines of the Duchy of Cornwall estate, there can be no objection to their indulging their natural inclinations to artificiality. If the inhabitant of the Garden Suburb has the satisfaction of eating his home-grown cabbage and the excitement of competing in sweet-pea contests, the town-dweller has leisure for the cultivation of other human activities, and those perhaps leading to a greater intensity of civilised life. For it must be clearly understood that the remodelled central areas of our towns can never become garden suburbs: the ideal of the latter is the single house standing in its own garden, to which semi-detached, three, and four groups are the nearest economic approaches obtainable. But the urban estate requires the long unbroken row, to produce the true effect of city neighbourliness; not facing narrow endless streets, but disposed around ample squares, the town dweller's communal garden. It must have some such character as that set forth by Sir Thomas More for his ideal city—a prophetic description of Georgian architecture: "The houses be of faire and gorgious building, and on the strete side they stande joyned together in a long rowe through the whole streate without any partition or separation. . . . For their cronicles recorde and witnesse that the houses in the beginning were very low, and like homely cotages or poore sheppard houses, made at all adventures of everye rude pece of tymber, that came firste to hande, with mudde walles, and ridged rooffes, thatched over with strawe. But now the houses be curiouslye buylded after a gorgious and gallante sorte, with three storyes one over another. The outsides of the walles be made either of harde flynte, or of plaster, or els of bricke, and the inner sydes be well strengthened with tymber work. The rooffes be plaine and flat, covered with a certen kinde of plaster that is of no coste, and yet so tempered that no fyre can hurt or perishe it, and withstandeth the violence of the wether better than any leade."

Certainly the "homely cotage," or the "poore sheppard house," however suitable with its rude timber work and high-ridged roof for the rural suburb, is out of place in the town. Messrs. Adshead and Ramsey, the architects, have realised that the only faults of the houses they are demolishing at Kennington, to make room for their own, are worn-out materials and antiquated planning. As to architectural character, they could not be bettered, and instead of ransacking Holland or facsimiling Cheshire black-and-white, they have dared to dispense with travelled sketches and to hide their store of exotic architectural whimsies. A couple of houses in this quiet London manner may not be noticeable; it is only in extended use that its fitness and charm become apparent; it is therefore doubly fortunate that the Kennington estate provides a sufficiently continuous quantity for its qualities to be rightly appreciated. That there need be no such thing as monotony, is abundantly evident from the accompanying illustrations. The more emphatic treatment of eaves and roll tiles lends a distinctive character to the Vicarage (Plate XVIII.) and the Old Tenants' Hostel (Plates I.-III.) that, without symbolical labouring, appears subtly suitable: delicate balconies, enriched panels, balustraded parapets and columnar porches give the Flats (Plates X.-XIV.) an air of refinement that wholly dissociates them from the necessitous tenement: the trellis porch, interlaced bars and a squat proportion produce in the new Square (Plate VI.) the homely aspect of the Englishman's own house.

The way these differentiating characteristics have been seized upon by the authors, and, within the frame of a harmonious style, worked so as to express the inner significance of these buildings, promises well for the further use of this medium.

Again, within the same type—as for example, the Flats, of which several blocks have been erected—there is scope for endless variety of surface treatment, in the judicious disposal of bands and panels, by which an individual interest is given to blocks of similar outline form. And what is particularly notable is the way in which the architects have combined refinement and delicacy of detail with an absence of frigid scholarship. The entrance to the Old Tenants' Hostel (Plate I.) is exactly where a lesser hand might have gone wrong: an archway 13 ft. high, flanked by Ionic pilasters—what a chance here for pulling out the full diapason of the neo-Grec organ, and how incongruous it would have been to the old people whose front door it is! Instead, combined with a certain largeness and breadth, reflecting its royal founder, there is a homely quality, obtained by the effortless grouping of overhanging wood cornice, cupola, bell and weather-vane. Such architectural self-restraint is rare in these self-conscious days.

Two other new buildings there are that show the extent of the social field covered in this rebuilding scheme: the Kennington Estate Office (Plate IX.) and the Crêche (Plate XVII.). The entrance doorway to the Office symbolises the dignity of the Crown, while in the Crêche the care of child-life finds fitting expression in the long casements of the garden front, lighting up cheerful nurseries and opening on to an airy balcony supported by slim columns.

Though enough has been built to produce that continuity of effect which is so necessary, it is only a beginning. Blocks of flats which one comes across here and there will eventually form parts of coherent streets, whose alignments are being revised; one can judge the effect of these extended treatments to some extent from the view looking down Courtenay Street (Plate X.) The Vicarage, again, is waiting for its church, which, from the designs that have been published, will escape the dullness of the typical late Georgian church that in former days would have been associated with this type of domestic architecture. Again, the Square has yet to have its complement of vegetation, fig-trees (that flourish so well in South London) growing up the walls and around the trellis porches; but, as may be seen from the general view on Plate VI., limes set in double rows have already been planted in the open space, and in a year or two these will form two clipped and shady alleys.

The grass of the quadrangle of the Old Tenants' Hostel, which is of course a design of more exclusive nature, already shows how much this greenery adds to the pleasant warmth of the London brick; in this quiet enclosure London is completely shut out (see Plate II.). The long sweeps of low unbroken roof are not overtopped by towering tenements, tall chimneys, or expanding gasometers; the sun shines out of an unobstructed sky, enlivening the whole enclosure, where flagged and cobbled paths and a central fountain with lead figure serve as a reminder of the eternal youth which should exist within our outward ageing bodies. Within the classic repose of their courtyard that so well reflects the dignity of age, the architects have allowed Mr. Poole, the sculptor, to intrude the romance of youth, with its grotesque batrachian satellite (the charm of the contrast may be appreciated by reference to the view on Plate IV.).

In the internal arrangement of both flats and houses the architects have not attempted any iconoclastic experiments; this is no sample show of freak plans. Up to the present they have apparently agreed with those who hold that the Parlour has not yet been completely discredited. It is simple enough, in the interests of cubic content of air-space, to point out forcibly what little use there is in a room that is hardly ever used. But fortunately utility is not the final aim . . . there are ideals: these may be humble and overlaid with strange custom, but they should be fostered or disengaged rather than stamped upon or perverted. The Parlour is the shrine of this sentiment—improve your shrine if you will, make its ritual less rigid, attempt to find substitutes for funeral cards and antimacassars; but do not, having ruthlessly swept it away, erect the slopstone into the domestic altar.

The planning for flats gives more scope for legitimate innovation, not so much in the units of the habitations themselves as in their grouping and association. The provision, for example, of a combined service of hot water for a whole block will interest the sanitarian: it is a type of communal economy that tramples on no domestic sanctities and might well be further extended. The architectural eye will be pleased at the neat lay-out on plan occasioned by the two segments at the entrance to Courtenay Street (Plate X.) These two crescents, with the associated shops (the most richly treated fronts on the estate) are carried out in a different colour from the rest of the new buildings: instead of the ochre London stock, they are built in a Crowborough brick, the colour of cream incarnadined, with rubbed arches of bright red. The result of this fuller colouring and greater richness is to join up the new estate imperceptibly with the older work in Kennington Lane.

It is of interest to note that the roofs are, for the most part, flat, being constructed of waterproof material covered with gravel. All the houses have electric light (which, up to a certain consumption, is included in the rent), and all have baths.

The importance and significance of the Kennington estate is thus two-fold; it is the first example of urban housing carried out on town-planning lines and conceived in no apologetic mood, as though it were a makeshift caused by the difficulty of carrying people out to the suburbs. No, this is frankly a group of town houses for town dwellers, and sets up a standard of its own, quite distinct from that of the suburb. The extent of the area dealt with and the radical re-arrangement in the proportion of built-on land to open space which is being effected in the site planning, lift this work above the piecemeal rebuilding of street blocks which is always taking place to a greater or less extent.

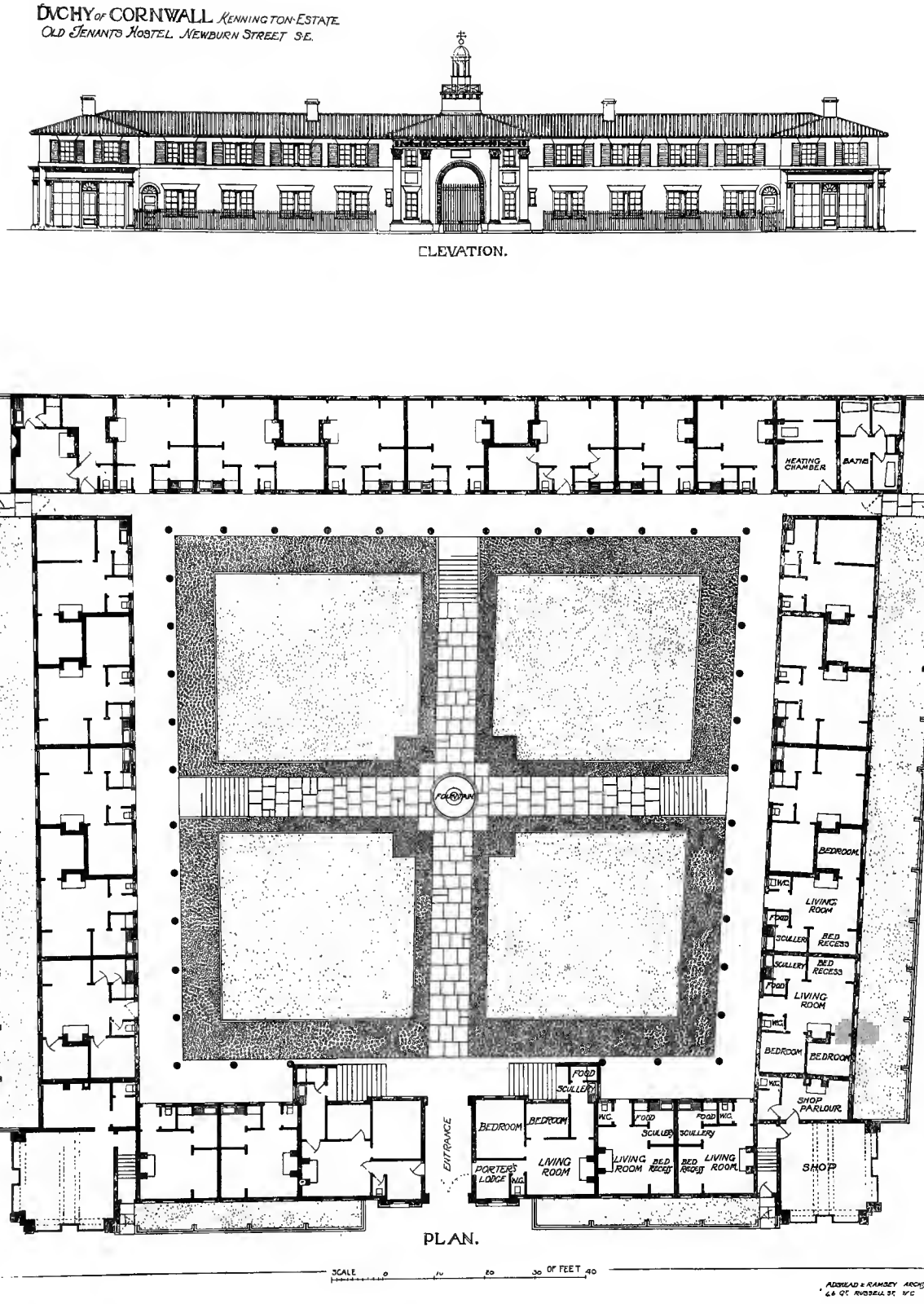
The other reason of its importance is, that it is artistically sound: that this should be achieved at the outset is indeed fortunate. We know how usual is the early fumbling of a new departure—the Garden Suburb is only now beginning to find its permanent idiom after endless experiments. At Kennington a satisfactory result has been obtained by the close study of a local tradition and usage which, carefully modified to suit modern requirements, was admirably adapted to its present purpose.

English towns in the future will gladly acknowledge their indebtedness to the King for initiating this first example of a modern town quarter, and to the Prince of Wales for its realisation

PATRICK ABERCROMBIE.

I. - OLD TENANTS' HOSTEL, NEWBURN STREET: ENTRANCE.

II.—OLD TENANTS' HOSTEL: VIEW OF QUADRANGLE.



III.—OLD TENANTS' HOSTEL: GROUND-FLOOR PLAN AND ELEVATION TO NEWBURN STREET.

OLD TENANTS' HOSTEL: FOUNTAIN IN QUADRANGLE.

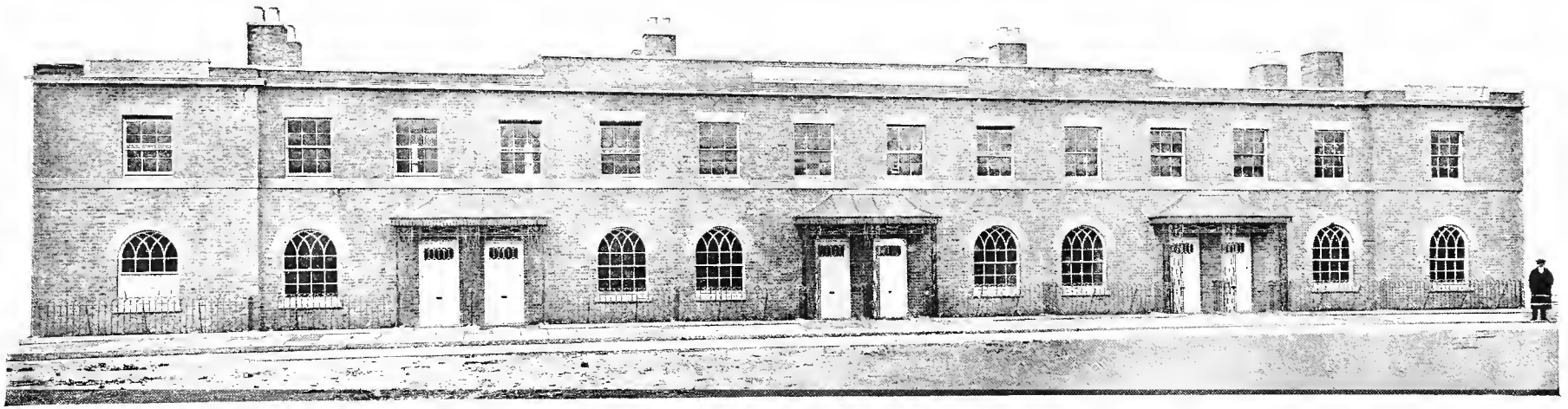
TWO HOUSES IN COURTENAY STREET.

Grocer's Shop at Corner of Old Tenants' Hostel.

Baker's Shop at Corner of Newburn Street and Sancroft Street.

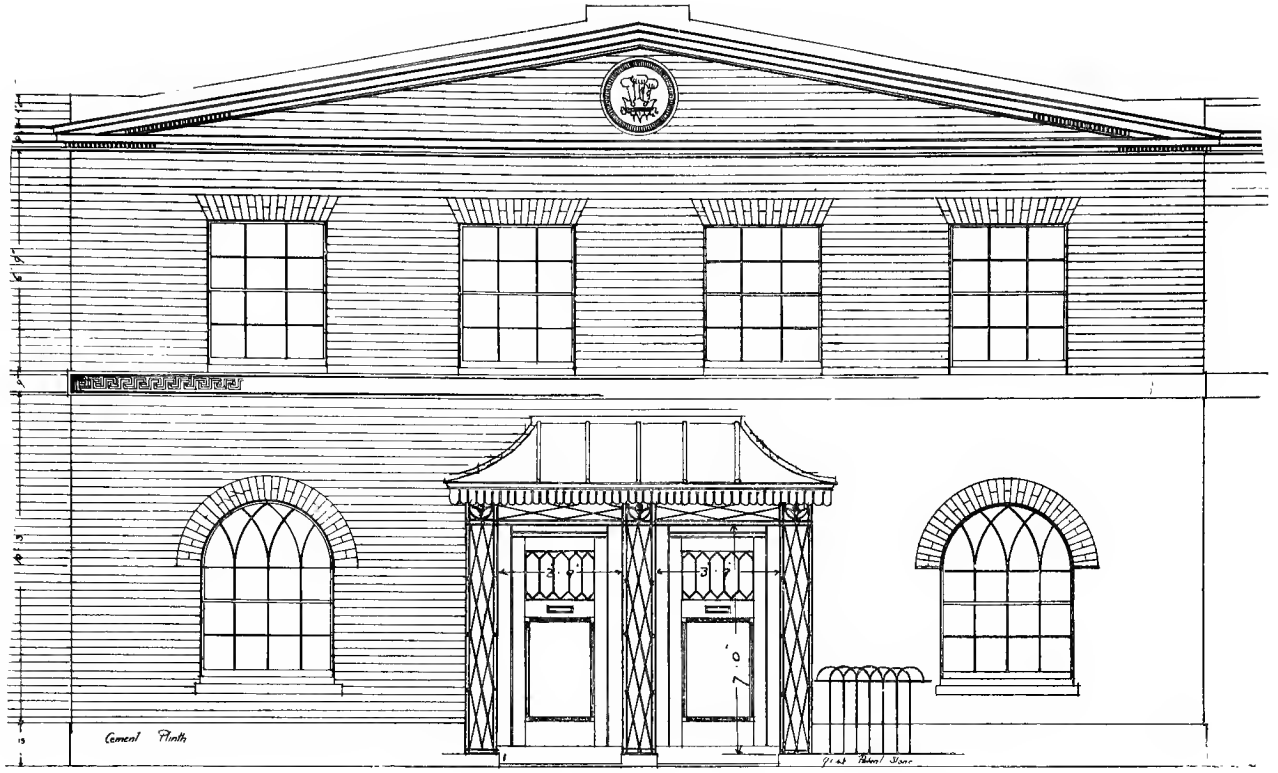
V.—TWO SHOPS IN NEWBURN STREET.

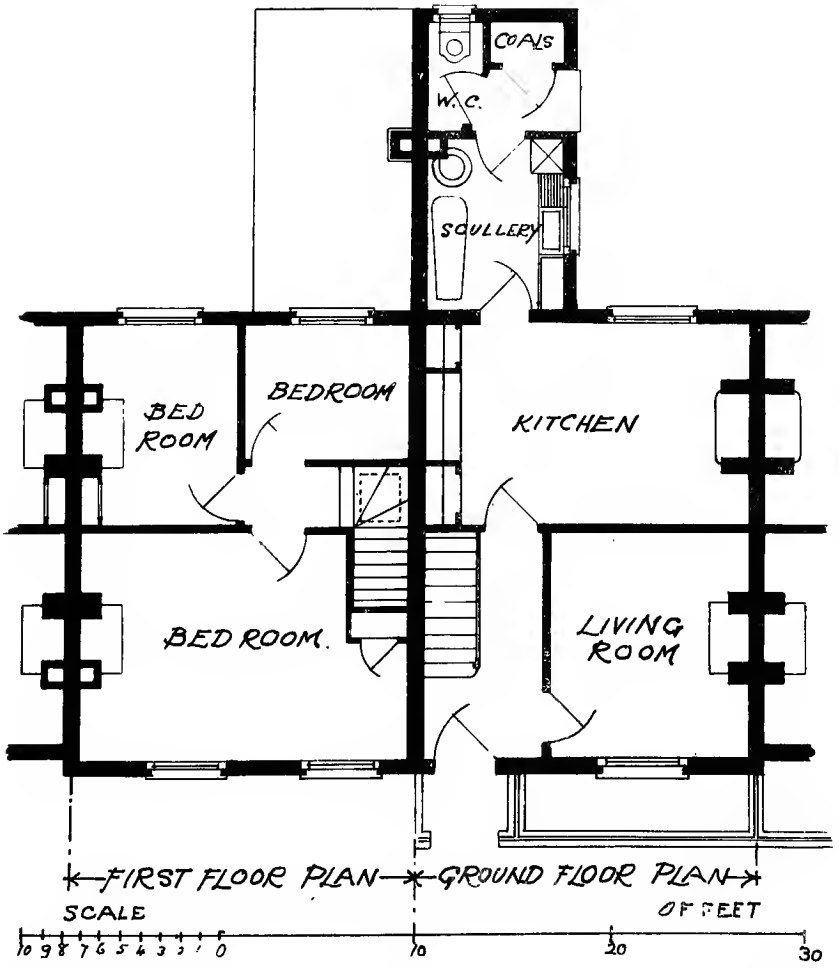
General View looking West.



Cottages on North Side.

VI.—COURTENAY SQUARE.

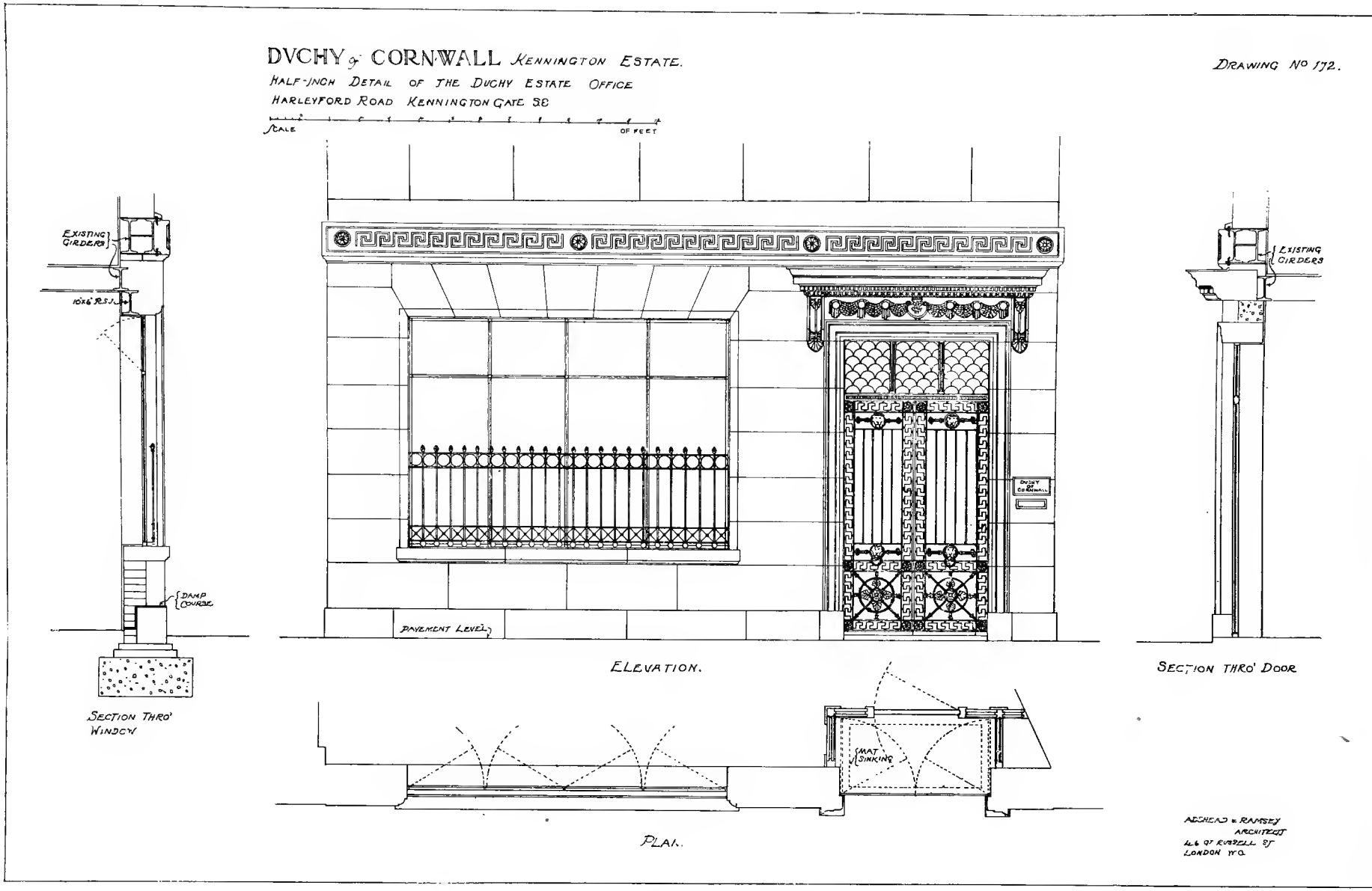




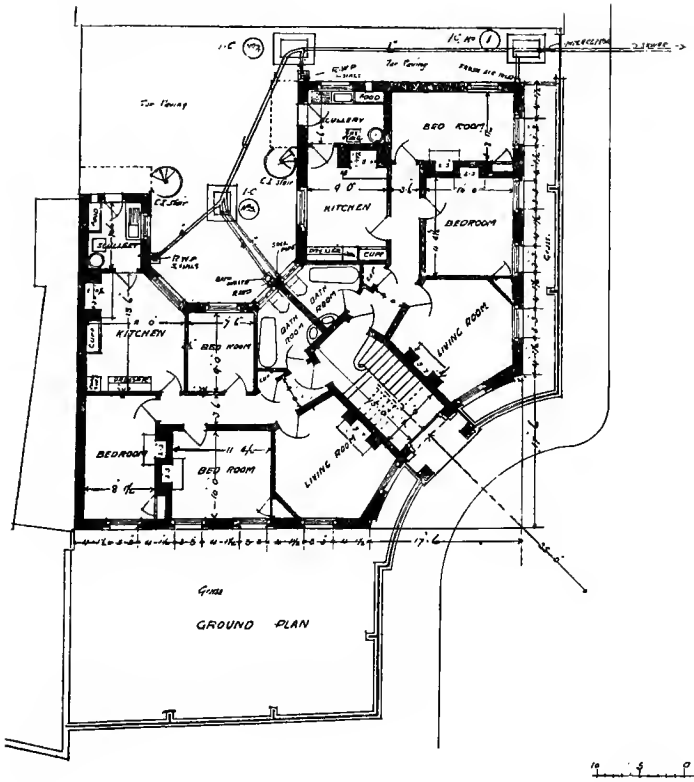
VII.—COTTAGES IN COURTENAY SQUARE: DETAIL OF ELEVATION AND PLANS OF GROUND AND FIRST FLOORS.

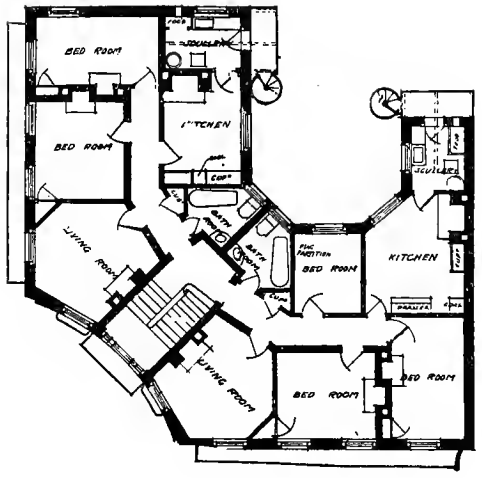
COTTAGES, COURTENAY STREET.

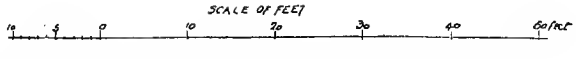
TWC-STOREY FLATS, NEWBURN STREET.



IX.—ESTATE OFFICE, KENNINGTON GATE.







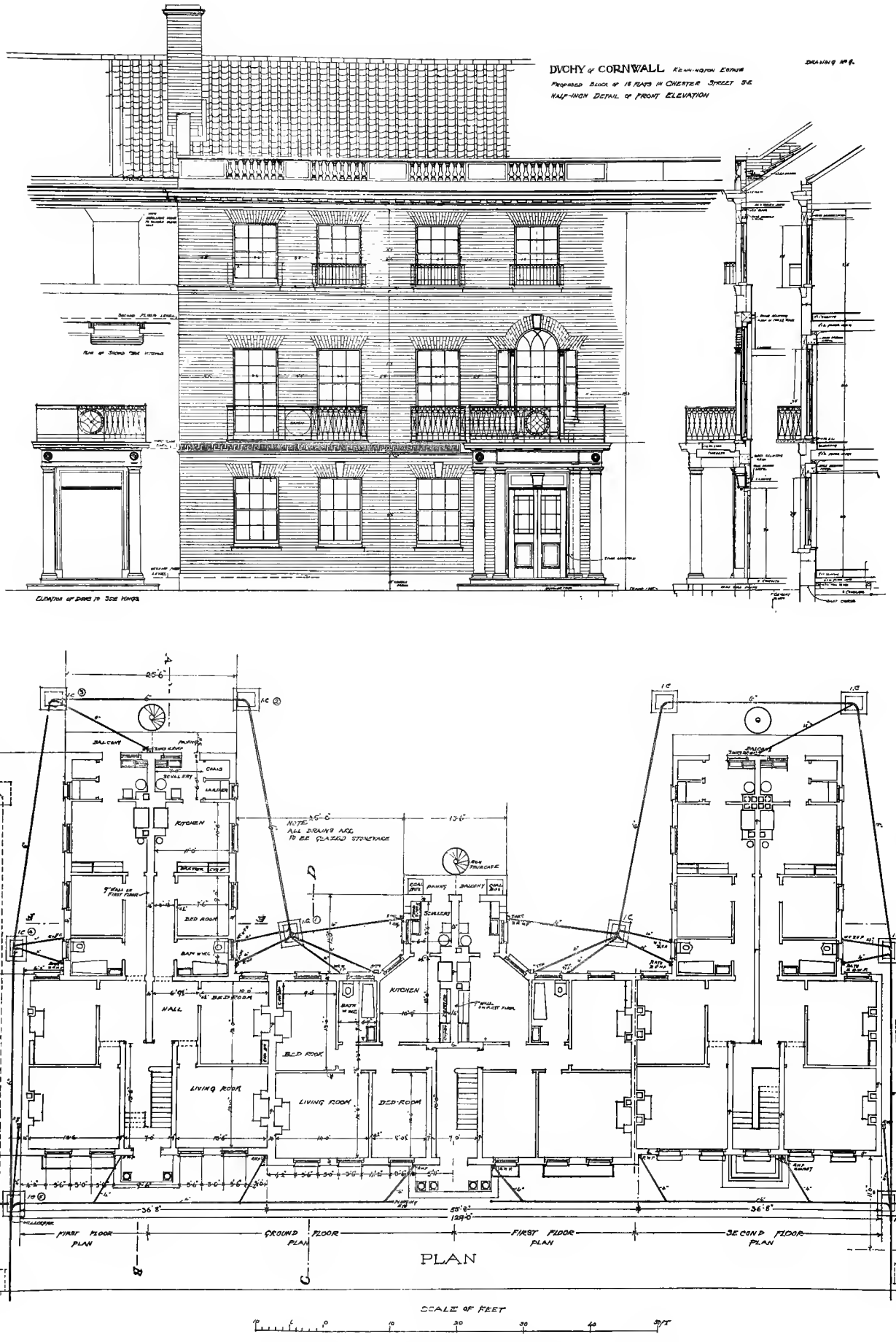
X.—FLATS IN UPPER KENNINGTON LANE AT ENTRANCE TO COURTENAY STREET.

XI.—FLATS IN UPPER KENNINGTON LANE AT ENTRANCE TO COURTENAY STREET: BLOCK ON RIGHT-HAND SIDE.

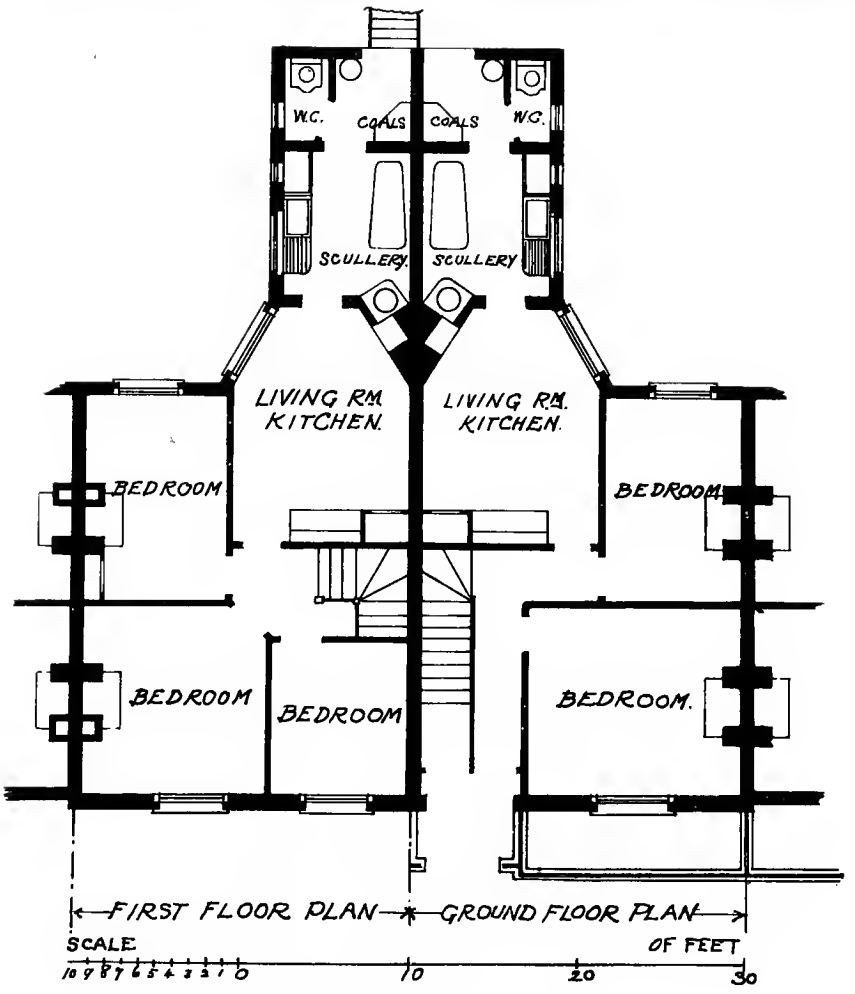
XII.—SHOPS IN UPPER KENNINGTON LANE.

XIII.—BLOCK OF EIGHTEEN FLATS ON NORTH SIDE OF CHESTER STREET.

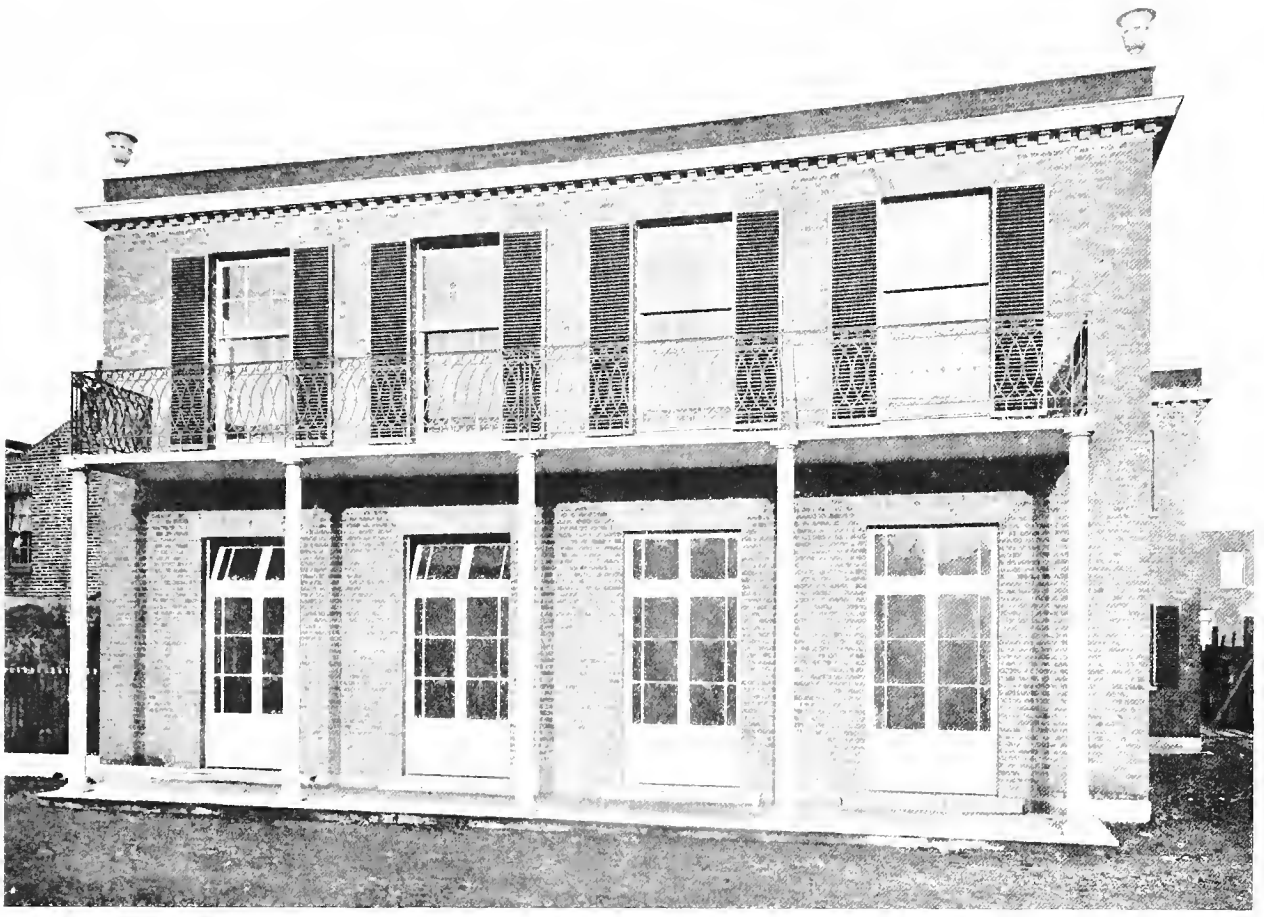
XIV.—BLOCK OF TWELVE FLATS AND COTTAGE ON SOUTH SIDE OF CHESTER STREET.



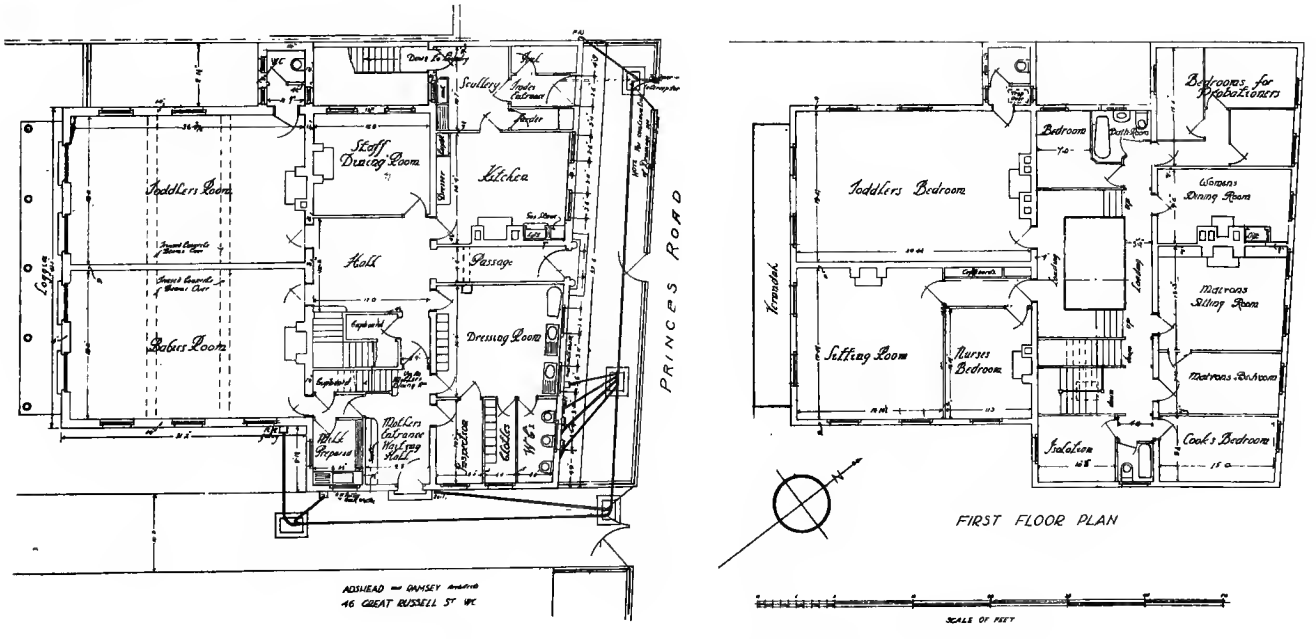
XV.—FLATS IN CHESTER STREET: DETAIL OF ELEVATION AND PLANS.



XVI.—TWO-STOREY FLATS, CARDIGAN STREET.



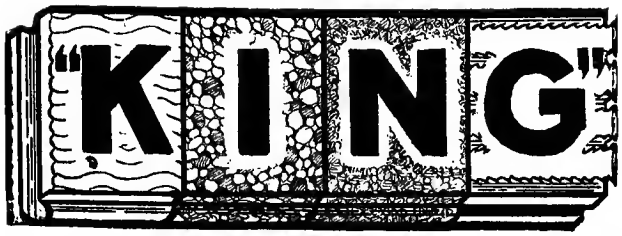
View from Garden.



XVII.—CRÊCHE IN PRINCES' ROAD.

XVIII.—ST. ANSELM'S VICARAGE.

SPEED. ECONOMY.



FIRE PROOF.

PARTITIONS

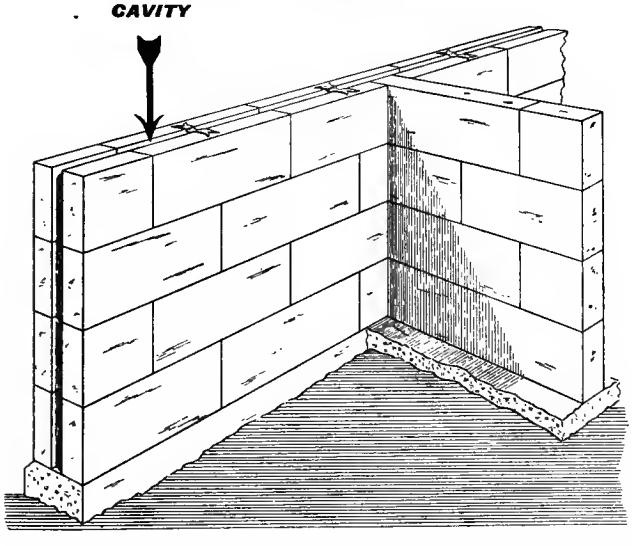
AND

BUILDING BLOCKS

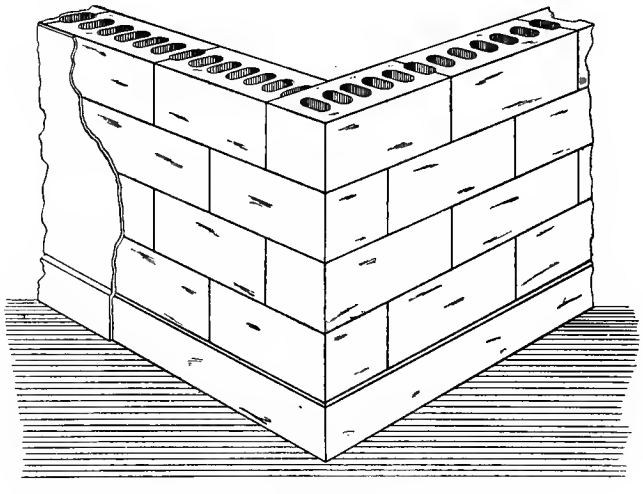
Internal and External Walls.

IDEAL CONSTRUCTION FOR COTTAGE HOMES.

CAVITY WALL.



HOLLOW BLOCK.



COMPLETE PLANT SENT TO ANY DISTRICT.
LOCAL MATERIALS USED WHERE AVAILABLE.

Blocks may be made of Gravel, Sand, Breeze, Ashes, Stone, &c.

ADOPTED BY H.M. GOVERNMENT.

FIBROUS PLASTER CEILING SLABS.

J. A. KING & Co.,

181, QUEEN VICTORIA STREET, LONDON, E.C. 4,

Works :—Hayes, Middlesex.
Rawcliffe, Yorks.

And at Britannia Buildings, Leeds.

"Garden City Houses."

A Companion Volume to "Houses for Workers."

This is not a simple collection of views, but a practical book for the practical man; each example being illustrated by a photograph and scaled drawing.

WITHIN the past few years houses of "garden city" type have been very popular among middle-class tenants of moderate income who desire to have a house that possesses a certain amount of rural character while at the same time being thoroughly up-to-date in its equipment. There is every indication that in the future these "garden city" houses will be in even greater demand than they are to-day. This volume, therefore, giving nearly 100 plates of selected examples, together with a model specification, is of very great value to all builders who are concerned with estate development. It illustrates the work of leading architects who have given special consideration to this type of house, and embraces a great variety of treatments.

The plates show not only the exteriors of the houses and their plans, but also details of their interior fittings, such as staircases, doors, chimneypieces, panelling, dressers, pantries, &c. They are of a good size, and the drawings and photographs, having all been specially prepared for the purpose, represent the work in the most complete manner possible.

Price 3s. 6d. (post free 3s. 11d.).

Size 12½ in. by 9 in.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.

The Architect's Library of Plates.

A SERIES OF VALUABLE PORTFOLIOS.

THE practising architect needs to have at hand, for reference, illustrations of Architectural Subjects which are of direct value to him in his everyday work, and to meet this need THE ARCHITECTS' AND BUILDERS' JOURNAL have for a long time included in each issue a series of large plates selected with special care. So successful have these plates proved, that it has been decided to republish them in portfolio form, each portfolio comprising about 50 plates, complete with index, so that immediate reference to any particular example may be made with facility.

The following fourteen series are now ready, and further portfolios will be issued from time to time :—

SERIES I (48 plates).
French Empire Furniture. Vases. Neo-Grec Detail. Roman Ornament. Restorations of Ancient Buildings.

SERIES II (43 plates).
Tablets and Inscriptions. French Monuments.

SERIES III (54 plates).
Designs by Daniel Marot. Designs by Krafft. Cottingham's Designs for Ironwork.

SERIES IV (38 plates).
Modern Shop Fronts. The Old Town Hall, Manchester. Georgian Interior Decoration.

SERIES V (50 plates).
Nineteenth-century French Architecture. Nineteenth-century English Architecture. Palace de Justice, Brussels. Palace Interiors. Florentine Palaces.

SERIES VI (16 plates, with explanatory letterpress)
Practical Chart of Town-planning. Schemes under the Act.

SERIES VIII (50 plates).
Current Architecture.—I.

SERIES IX (50 plates).
Current Architecture—I. (*continued*).

SERIES X (50 plates).
Current Architecture—II.

SERIES XI (50 plates).
Modern Domestic Architecture.—I.

SERIES XII (50 plates).
Monumental Architecture.

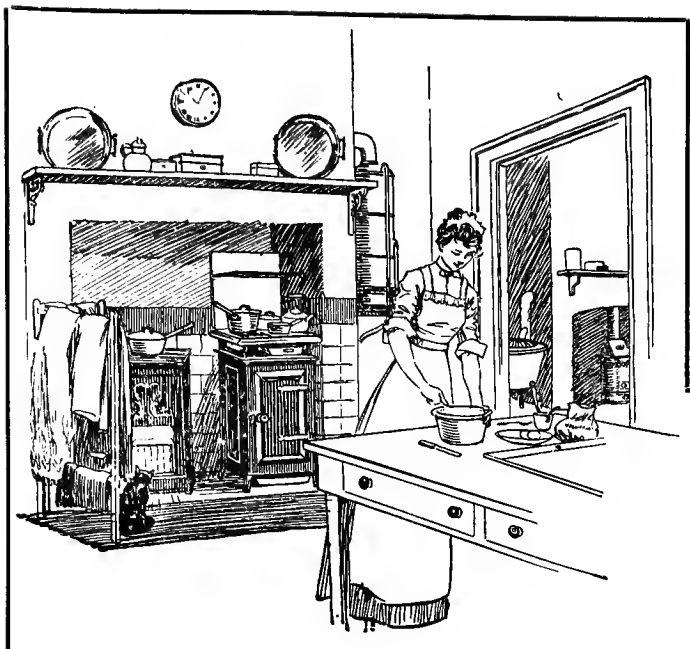
SERIES XIII (50 plates).
Architects' Working Drawings.

SERIES XIV (50 plates).
Modern American Architecture.

SERIES XV (50 plates).
Details of Craftsmanship.

Fourteen Portfolios. Price 7/6 each nett. Over 700 Plates.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.



Housing *the* Workers

In housing the workers, a prime necessity is to equip each separate dwelling in such a way that it can be run with the maximum of comfort and the minimum of labour. Hence the growing popularity of the "all-gas kitchen," complete with gas cooker, gas fire, gas water-heater, gas washing copper and gas refuse destructor.

The House or Cottage.

The convenience, reliability, and cleanliness of such an installation amply compensate for its extra cost as compared with solid fuel; and this financial divergence can be reduced to a low figure if the gas is consumed on the slot meter principle by which the pence or shillings dropped into the meter cover the entire cost of the fitting, hire and maintenance of the apparatus as well as the charge for gas. The slot meter is an excellent check on consumption and a direct aid to economy.

With regard to the convenience and reliability of gas apparatus nothing need be said here; these qualities are well known and appreciated. It may be mentioned, however, that their cleanliness makes it quite possible to use the kitchen as a living room, especially where a scullery is available as a wash-house.

The Tenement or "Block."

The same principles may be adapted for communal dwelling-houses. In each flat a gas cooker in the kitchen and in the scullery and a gas copper supplying hot water to a tip-up bath can be supplemented by a coke boiler in the basement providing hot water for heating purposes to the whole block. With coke at post-war prices this convenience need not add appreciably to the weekly rent, and would greatly simplify the housewife's task. When new blocks were being erected it might be found eminently practicable to turn a portion of the basement into a communal wash-house, fitted up with gas coppers and other necessary appliances, the use of which could be secured on the payment of a small fixed charge to cover the cost of gas, wear and tear, &c.

Whatever be the type of building it is to the interest at once of the individual and of the nation that the combustion of crude coal should be as far as possible eliminated in favour of that of gas and gas coke, in the production of which the valuable substances resident in coal and otherwise lost are recovered for the country's use and profit.

Readers of this paper are invited to write for the special "All-Gas House" number of "A Thousand and One Uses for Gas," together with any other information they may require, to the Secretary, The British Commercial Gas Association, 47, Victoria Street, Westminster, S.W. 1.

T. 332.

The Practical Exemplar of Architecture.

Selected by MERVYN E. MACARTNEY, B.A., F.S.A., F.R.I.B.A.

TO secure a complete representation of architecture, it is necessary to encompass the resources of the photographer and the skill of the draughtsman. By these means a pictorial record is obtained, and at the same time there are ready to hand drawings which show the design in elevation, plan, and section, together with details of the enrichment and construction.

It is precisely because "THE PRACTICAL EXEMPLAR" series gives this complete representation of some of the finest examples of architecture to be found in the Kingdom that it has been so warmly received. The drawings, expressly prepared for this publication, are themselves admirable examples of accurate, clear, and artistic draughtsmanship.

The plates are of very great variety, comprising illustrations of admirable examples of chimney-pieces, gates, panelling, doorways, ironwork, staircases, windows, and a score of other features which the Architect can make practical use of.

Complete list of Plates will be sent on application.

FIVE PORTFOLIOS (13½ in. by 9½ in.). PRICE £1 1s. EACH NETT. OVER 550 PLATES.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.

Practical Notes for Architectural Draughtsmen.

By A. W. S. CROSS, M.A., F.R.I.B.A., and ALAN E. MUNBY, M.A., F.R.I.B.A.

AT a time when classical architecture is coming more and more into vogue, it is essential that the draughtsman should be able to set out "The Orders" in a rapid and precise manner Such facility can only be acquired by familiarity with the best methods of setting up drawings. It is the special object of this volume to show these methods.

The plates are not confined to "The Orders" proper, but embrace their application to windows, doorways, arcading, niches, &c., and include also a number of large illustrations of domes, staircases, and other constructional features, as well as plates illustrating the best methods of setting up perspectives and the projection of shadows.

LIST OF PLATES CONTAINED IN PORTFOLIO.

PART I. THE ORDERS AND THEIR APPLICATION.
- Plate 1. Introduction.
- ,, 2. The Four Orders.
- ,, 3. The Tuscan and Doric Orders in detail.
- ,, 4. The Ionic and Corinthian Orders in detail.
- ,, 5. Details of Imposts and Arch Moulds.
- ,, 6. Order upon Order and Intercolumniation.
- ,, 7. Doorways and Pediments.
- ,, 8. Windows and Entablatures.
- ,, 9. Windows, Rusticated Treatment
- ,, 10. Venetian and other Windows.
- ,, 11. Niches and their Treatment.
- ,, 12 Block Cornices, Balusters, Entablatures, and Entasis.

PART II. DETAILS OF THE ORDERS.
- Plate 13. Rules for setting out the Volutes of the Ionic Capital by (1) Gibbs, and (2) Vignola and Palladio.
- Plate 14. Details of Ionic and Corinthian Capitals.
- ,, 15. Examples of Arcading (Ionic and Doric).
- ,, 16. Examples of Arcading (Tuscan and Corinthian.

PART III. CONSTRUCTIONAL DETAILS.
- Plate 17. Domes.
- ,, 18. Pendentives, Circular Staircases, and Wreathed Columns.
- ,, 19. Gothic Tracery and Vaulting.

PART IV. PERSPECTIVE.
- Plate 20. Notes on Architectural Perspective.
- ,, 21. Setting up a Perspective.

PART V. SHADOWS.
- Plate 22. Explanatory matter regarding the projection of Shadows.
- ,, 23-27. Examples illustrating Shadows on various architectural details.

ONE PORTFOLIO (19 in. by 14 in.). PRICE £1 1s. FETT. 27 PLATES.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.

Standard Details.

Specially prepared for the use of Students in Technical Schools, Universities, &c.

THIS volume has been prepared with the special object of providing very large plates of exterior and interior details which may be regarded as "Standard" details of their several periods.

The drawings themselves are of superb quality—it would, indeed, be impossible to excel them as specimens of line draughtsmanship, and included on the plates are small photographic reproductions of the actual work.

LIST OF THE SUBJECTS ILLUSTRATED.

STAIRCASE AT THORPE HALL (2 plates).—One of the finest examples of a seventeenth-century English staircase, richly wrought and carved.

PORCH AT RAINHAM (2 plates).—A very graceful design, executed in wood, dating from the late seventeenth or early eighteenth century.

KING'S BENCH WALK DOORWAYS (3 plates).—By Wren, displaying all his skill in the use of brickwork.

PANELLING AND CHIMNEYPIECE IN NEW RIVER COMPANY'S OFFICES (5 plates).—As an example of the Later English Renaissance nothing finer than this room could be conceived. The carved enrichments are in the manner of Grinling Gibbons.

JUDGE'S HOUSE, SALISBURY (2 plates).—A dignified Georgian house façade, dating from the early years of the eighteenth century.

EXTERIOR BRICKWORK FROM ENFIELD (2 plates).—Part of a late seventeenth-century house, now in the South Kensington Museum

LIBRARY CHIMNEYPIECE, THORPE HALL (1 plate).—An example of the Early Renaissance.

STAIRCASE IN GUILDHALL, ROCHESTER (1 plate).—Of the Wren period—a simple but sturdy design, full of interest.

DINING-ROOM CHIMNEYPIECE, BOURDON HOUSE, LONDON (1 plate). — Executed in the eighteenth century from a design by Inigo Jones, with a firegrate of the Adam period.

STAIRCASE IN CROMWELL HOUSE, HIGHGATE (4 plates).—The most wonderful staircase of its period—the Cromwellian.

CHIMNEYPIECE ASCRIBED TO SETTIGNANO IN SOUTH KENSINGTON MUSEUM (2 plates).—A Florentine example of the late fifteenth century, finely executed in marble.

One Portfolio. Price 15s. nett. 25 Plates with Portfolio. Cheap Edition, 7s. 6d. each.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.

A Short Chronological History of British Architecture.

THE greatest achievements of British architecture are presented as a *coup d'œil* in this attractive volume. Thus, in Section I. we survey the work of the cathedral builders; in Section II. notable examples of the Early Renaissance, such as Hatfield and Montacute; in Section III. the great buildings of the Later Renaissance, such as Blenheim Palace, Greenwich Hospital, and the Dublin Customs House, with the addition of Newgate Prison, St. George's Hall, Liverpool, and a few similar examples that carry us into the nineteenth century; the survey concluding with a fine series of illustrations of work by Sir Aston Webb, Mr. Ernest Newton, Mr. Mervyn Macartney, and other eminent architects of the present day.

The letterpress accompanying the illustrations is written by acknowledged authorities, and sets forth in brief order the entire chronological development, following the succeeding phases of architectural art, and supplying those essential facts which are necessary to a proper estimate of the whole.

CONTENTS:

SECTION I. (1050-1550). Summary of ENGLISH MEDIÆVAL ARCHITECTURE. By EDWARD S. PRIOR, M.A., F.S.A., F.R.I.B.A.

SECTION II. (1516-1650). Summary of EARLY RENAISSANCE ARCHITECTURE. By J. ALFRED GOTCH, F.S.A., F.R.I.B.A.

SECTION III. Summary of LATER RENAISSANCE ARCHITECTURE. By MERVYN E. MACARTNEY, B.A., F.S.A., F.R.I.B.A.

SECTIONS IV. AND V.

Contain a valuable List of the Principal Architects of the English Later Renaissance, and their chief authenticated and reputed works, with dates, and a number of fine examples of work by living Architects.

Beautifully printed on heavy art paper. 12¾-in. by 9-in. 150 pages. Price 15s. nett (post free inland).

Technical Journals, Ltd., 27-29, Tothill Street Westminster, S.W. 1.

And of all Newsagents and Booksellers.

Some Famous Buildings and their Story.

By A. W. CLAPHAM, F.S.A., and W. H. GODFREY.

BUILDINGS that have been the scene of historical events, or have played a distinctive part in the development of national life, are commonly dealt with either at length in a most unattractive style, or dismissed in a few sentences embodying dates and particulars which are frequently inaccurate. It was with the express object of correcting these deficiencies in respect of certain famous buildings that the authors compiled the series of short papers which constitute the volume under notice. They have been at great pains in their task, and, as the result of much original research, a flood of fresh light is thrown upon the subjects dealt with.

The book is written in a most interesting style, and is a veritable mine of information.

ONE VOLUME (10 in. by 6½ in.). Price 5/- nett. 275 PAGES.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.

The Etchings of Piranesi.

WITH AN INTRODUCTION BY

Prof. C. H. REILLY, M.A., F.R.I.B.A.

GIOVANNI BATTISTA PIRANESI is unquestionably the greatest architectural etcher the world has ever seen. With skill and imagination he depicted the classic architecture of Rome, his great folios being filled with representations of the mighty buildings of the Eternal City, and, with equal care and skill, a wonderful array of vases, friezes, and other details that played their part in the ornamentation of Roman buildings. He also produced the amazing series of etchings called *Le Carceri d'Invenzione.*

Piranesi's etchings have now become extremely valuable. It will readily be appreciated, therefore, that the careful selection of a hundred plates and their reproduction in these two volumes is a work of peculiar interest. Never indeed, has so comprehensive a series of Piranesi's etchings been offered at so low a price.

TWO VOLUMES (9¾ in. by 6 in.). Price 3/- each nett. Post free (inland), 3/4. 50 PLATES EACH VOL.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.

Recent English Domestic Architecture.

ENGLISH houses have so long established themselves in the forefront of domestic architecture that the distinctive qualities which they exhibit need not be enlarged upon ; no houses excel them for quiet dignity, appropriate treatment, and charm of effect.

English architects have enjoyed a unique legacy in the mansions of the Tudor and Renaissance periods, and the delightful character of these examples has been an ever-failing inspiration for modern work.

Of great interest and value are these volumes dealing with recent examples of English Domestic Architecture, by architects whose ability in this branch of work is acknowledged and admired. Great care has been exercised in the selection of the examples, which are illustrated by means of photographs reproduced to a large size and accompanied by plans and descriptive particulars.

The volumes are no mere picture-books. They are very complete in their scope, embracing not only general exterior and interior views, but also details of decorative work in the houses illustrated. Garden design, too, has received adequate attention.

Three Volumes (13 in. by 8¾ in.). Over 200 Pages each.

PRICE 10/6 NETT.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.

Recent English Ecclesiastical Architecture.

THE ecclesiastical buildings of the prominent exponents of the Gothic revival—Pugin, Scott, Butterfield, and the rest—have already been fully illustrated, but never before has there been brought together a representative series of photographs of recent the work of English church architects.

Examples of the best modern church work are included, the illustrations being from specially-taken photographs reproduced to a large size. Much care has been exercised in the selection of the examples which, moreover, are not confined to any one style or creed.

It is a volume which appeals to all who have an interest in modern church work, but more especially to the architect who is called upon to evolve the design and superintend the erection of church buildings.

One Volume (13 in. by 9 in.). 250 Pages.

PRICE 10/6 NETT.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.

Specification for Architects

(*With which is included* "Municipal Engineers' Specification").

IN all English-speaking countries SPECIFICATION is the recognised Standard Authority on the many subjects with which an Architect must deal when preparing his Specifications. The work is at once concise and comprehensive, and so vast a mass of practical information is not to be found in any other single volume.

Every Section has been written by an accredited authority, and the annual revision comprises the contributions of scores of qualified specialists of recognised standing in their several departments.

Important new features of topical as well as permanent interest are contributed to each new edition.

ISSUED IN JANUARY OF EACH YEAR. OVER 500 PAGES.

Price 3/6 nett. Postage, 7d. inland.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.

The Rebuilding of Belgium.

EVERY far-seeing business man knows that the resolutions adopted unanimously at the Allies' Economic Conference held in Paris opened up tremendous opportunities for the future. In order to derive full benefits from the policy to be adopted, it is essential for English contractors and manufacturers to acquaint themselves with all the requirements and conditions affecting their business on the Continent.

An enlightening and valuable book embodying the needs of Belgium with respect to the Building Trade has been written by two eminent Belgians for the express purpose of showing English contractors and manufacturers frankly and clearly how this side of the Belgian trade is to be captured.

Every contractor and manufacturer should have a copy.

Price 1/- nett. Postage 1d. inland.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.

French-English Glossary of Architectural and Building Trade Terms.

IT seems to be evident that the French language will be almost an essential under the new cooditions of trade which are so rapidly opening before contractors and manufacturers.

No ordinary knowledge of French, however, includes technical and trade terms, and such terms are not to be found in the ordioary dictionary.

The book contains a useful collection of words and phrases most commonly in use in the building and kindred industries – just those very terms which are most difficult to find when they are wanted. Such a book is practically an essential to every manufacturer and contractor.

Price 1/- nett. Postage 1d. inland.

Technical Journals, Ltd., 27-29, Tothill Street, Westminster, S.W. 1.

An Interesting Record of the

Town of Louvain & Reims Cathedral

Before and After Destruction.

LOUVAIN and Reims, at the hand of the Germans, have suffered irreparable damage. Hence the interest of the present volume, which with, its rich store of illustrations, shows what glorious handiwork has perished by bombardment and by fire.

LOUVAIN—a town whose Hôtel de Ville, pinnacled and fretted. stood foremost among the Gothic buildings of its kind in Belgium, whose great church had witnessed the whole history of Flanders and of Brabant, whose University had stood as a centre of learning for a whole nation.

REIMS—the very crown and flower of French Gothic whose embellishment was a miracle of sculpture and stained glass.

PRICE 3/6 nett. POST FREE (inland) 3/10.

Technical Journals, Ltd. :: :: :: 27-29, Tothill Street, Westminster, S.W. 1.